ARCTIC DATA COMPILATION AND APPRAISAL
VOLUME 6
Queen Elizabeth Islands: Physical Oceanography - Temperature, Salinity, Currents and Water Levels

D.B. Fissel[1], L. Cuypers[1], D.D. Lemon[1], J.R. Birch[1],
A.B. Cornford[2], R.A. Lake[2], B.D. Smiley[2],
R.W. Macdonald[2] and R.H. Herlinveaux[2]

[1]Arctic Sciences Ltd.
Sidney, B.C., V8L 3S1
and
[2]Institute of Ocean Sciences
Department of Fisheries and Oceans
Sidney, B.C., V8L 4B2

1983

CANADIAN DATA REPORT OF HYDROGRAPHY AND OCEAN SCIENCES NO. 5

Canadian Data Report Of Hydrography and Ocean Sciences

These reports provide a medium for the documentation and dissemination of data in a form directly useable by the scientific and engineering communities.

Generally, the reports will contain raw and/or analyzed data but will not contain interpretations of the data. Such compilations will commonly have been prepared in support of work related to the programs and interests of the Ocean Science and Surveys (OSS) sector of the Department of Fisheries and Oceans.

Data Reports are produced regionally but are numbered and indexed nationally. Requests for individual reports will be fulfilled by the issuing establishment listed on the front cover and title page. Out of stock reports will be supplied for a fee by commercial agents.

Regional and headquarters establishments of Ocean Science and Surveys ceased publication of their various report series as of December 1981. A complete listing of these publications and the last number issued under each title are published in the *Canadian Journal of Fisheries and Aquatic Sciences*, Volume 38: Index to Publications 1981. The current series began with Report Number 1 in January 1982.

Rapport statistique canadien sur l'hydrographie et les sciences océaniques

Ces rapports servent de véhicule pour la compilation et la diffusion des données sous une forme directement utilisable par les scientifiques et les techniciens.

En général, les rapports contiennent des données brutes ou analysées mais ne fournissent pas d'interprétations des données. Ces compilations sont préparées le plus souvent à l'appui de travaux reliés aux programmes et intérêts du service des Sciences et Levés océaniques (SLO) du ministère des Pêches et des Océans.

Les rapports statistiques sont produits à l'échelon régional mais sont numérotés et placés dans l'index à l'échelon national. Les demandes de rapports seront satisfaites par l'établissement auteur dont le nom figure sur la couverture et la page de titre. Les rapports épuisés seront fournis contre rétribution par des agents commerciaux.

Les établissements des Sciences et Levés océaniques dans les régions et à l'administration centrale ont cessé de publier leurs diverses séries de rapports depuis décembre 1981. Vous trouverez dans l'index des publications du volume 38 du *Journal canadien des sciences halieutiques et aquatiques*, la liste de ces publications ainsi que le dernier numéro paru dans chaque catégorie. La nouvelle série a commencé avec la publication du Rapport n° 1 en janvier 1982.

CANADIAN DATA REPORT OF
HYDROGRAPHY AND OCEAN SCIENCES
NO. 5

1983

ARCTIC DATA COMPILATION AND APPRAISAL
VOLUME 6
Queen Elizabeth Islands: Physical Oceanography - Temperature, Salinity, Currents and Water Levels

by

D.B. Fissel[1], L. Cuypers[1], D.D. Lemon[1], J.R. Birch[1],

A.B. Cornford[2], R.A. Lake[2], B.D. Smiley[2],

R.W. Macdonald[2] and R.H. Herlinveaux[2]

[1]Arctic Sciences Ltd.
Sidney, B.C, V8L 3S1

and

[2]Institute of Ocean Sciences
Department of Fisheries and Oceans
Sidney, B.C., V8L 4B2

Institute of Ocean Sciences
Department of Fisheries and Oceans
Sidney, B.C., V8L 4B2

PREFACE

This group of data catalogues is produced by the Ocean Information Division at the Institute of Ocean Sciences. Joint government/industry contract projects have catalogued marine data sets focusing primarily upon oceanography and fisheries. Data set quality appraisals are provided to assist in establishing the usefulness of certain data for particular kinds of analyses and the confidence to be placed in interpretations. This will assist in setting priorities for incorporating the most useful data in the national Marine Environmental Data Service (MEDS) archives. Additional uses range from contributing to research planning, especially for climatological studies, to providing the best available resume of marine data sources for environmental assessments.

Accompanying the accelerating pace of Arctic offshore development activity is the need to review the sufficiency and suitability of available scientific information for design, regulatory and planning purposes. This review process has been divided into three phases: the first phase involves compilation and appraisal of all existing data sets; the second concentrates upon analysis of the suitability of the historical data for contributing to questions of particular interest; while the third relates primarily to analysis and/or interpretation of data and estimation of the scientific confidence in answering particular questions. This report represents the results of the first phase for the physical oceanographic data of the Queen Elizabeth Islands area.

Dr. Alan B. Cornford
Scientific Editor
Arctic Data Compilation
and Appraisal Series

Copyright Minister of Supply and Services Canada - 1983

Cat. No. Fs 97-16/5 ISSN 0711-6721

Correct citation for this publication is:

D.B. Fissel, L. Cuypers, D.D. Lemon, J.R. Birch, A.B. Cornford, R.A. Lake, B.D. Smiley, R.W. Macdonald and R.H. Herlinveaux. Arctic Data Compilation and Appraisal. Volume 6. Queen Elizabeth Islands: Physical Oceanography - Temperature, Salinity, Currents and Water Levels.
Can. Data Rep. Hydrogr. Ocean Sci. 5: (Vol. 6) 214 p.

CONTENTS

	Page
ABSTRACT	iv
ACKNOWLEDGEMENTS	v
SPECIAL CREDITS	vi
VOLUME ABSTRACT	1
1. INTRODUCTION	1
2. STUDY AREA	1
3. HISTORICAL DATA	3
4. GENERAL REPORT LAYOUT AND USER INSTRUCTIONS	5
4.1 DATA SETS	5
4.2 INVENTORY ORGANIZATION	5
4.3 SAMPLE USE OF THE INVENTORY	6
5. DATA RATING AND APPRAISAL	8
5.1 TYPES OF DATA	8
5.2 DATA RATING SCALE	11
6. SUMMARY OF DATA COVERAGE	14
6.1 SPATIAL COVERAGE, INCLUDING DATA DISTRIBUTION MAPS	14
6.2 SEASONAL COVERAGE, INCLUDING BI-MONTHLY MAPS	14
6.3 SYNOPTIC DATA SETS AND EXTENDED TIME SERIES	44
6.4 CONCLUSIONS	44
7. REFERENCES	45
8. DATA INVENTORY TABLE	51
9. MAPS	65
10. INDEXES	121
10.1 GEOGRAPHICAL	122
10.2 MEASUREMENT TYPE	123
10.3 REFERENCES BY DATA SET NUMBER	124
11. LISTING OF MEASUREMENT LOCATIONS AND OTHER PARAMETERS, BY YEAR	130
11.1 TEMPERATURE-SALINITY DATA	130
11.2 CURRENT METER DATA	161
11.3 WATER LEVEL DATA	176
APPENDIX 1 - REMARKS - METHODS, PROBLEMS AND ERRORS BY DATA SET NUMBER	193
APPENDIX 2 - ADDRESSES OF INFORMATION SOURCES	214

ABSTRACT

D.B. Fissel, L. Cuypers, D.D. Lemon, J.R. Birch, A.B. Cornford, R.A. Lake, B.D. Smiley, R.W. Macdonald and R.H. Herlinveaux. Arctic Data Compilation and Appraisal. Volume 6. Queen Elizabeth Islands: Physical Oceanography - Temperature, Salinity, Currents and Water Levels.
Can. Data Rep. Hydrogr. Ocean Sci. 5: (Vol. 6) 214 p.

This volume is one of a group of catalogues designed to compile and appraise marine data sets for the Canadian Arctic. For user convenience, the group has been organized with its subject matter divided into three general disciplines: physics, chemistry and biology. The Arctic has been arbitrarily divided into seven geographical areas incorporating, where possible, major oceanographic regions. The format throughout has been structured to facilitate comparison among subjects and regions. With such a large undertaking it is not possible to provide all reports at once. Therefore catalogues which are presently available in the series are indicated on the inside back cover of each volume.

Data collection is a continuing process and further updates of the catalogues are planned. Readers are requested to submit corrections and additions by writing the issuing establishment. Such corrections will be incorporated in on-line computerized data set listings and will be continuously available upon request.

SOMMAIRE

D.B. Fissel, L. Cuypers, D.D. Lemon, J.R. Birch, A.B. Cornford, R.A. Lake, B.D. Smiley, R.W. Macdonald and R.H. Herlinveaux. Arctic Data Compilation and Appraisal. Volume 6. Queen Elizabeth Islands: Physical Oceanography - Temperature, Salinity, Currents and Water Levels.
Can. Data Rep. Hydrogr. Ocean Sci. 5: (Vol. 6) 215 p.

Le présent volume fait partie d'un groupe de catalogues destinés à compiler et à évaluer les séries de données marines sur l'Arctique canadien. Pour plus de commodité, la question traitée est structurée en trois grandes disciplines: physique, chimie et biologie. L'Arctique a été divisé arbitrairement en sept régions géographiques qui englobent autant que possible les grandes régions océanographiques. Les catalogues sont présentés de façon à faciliter la comparaison entre les sujets et les régions. Le domaine est si vaste qu'il est impossible de fournir tous les catalogues en une seule fois. Les catalogues de la série actuellement disponibles sont indiqués à la fin de chaque volume à l'interieur de la couverture.

La collecte des données est un processus permanent et il est prévu de mettre à jour les catalogues par la suite. Les lecteurs sont invités à soumettre par écrit les corrections et les additions à l'établissement auteur. Ces corrections seront traitées en direct sur ordinateur et incorporées aux listages qui pourront être obtenus sur demande.

ACKNOWLEDGEMENTS

In particular, we wish to thank Dr. M.P. Van Ieperen of Panarctic Oils Ltd., Calgary, for providing much valuable information and for reviewing an earlier draft of this report. Much appreciated information and assistance were received from Dr. N. Freeman and Dr. S. Prinsenberg of the Bayfield Laboratory for Marine Sciences and Surveys, Burlington; Mr. S. Peck, Department of Fisheries and Oceans, Montreal; Dr. J.R. Buckley, Petro-Canada, Calgary; Mr. D.A. St. Jacques, Canadian Hydrographic Service, Burlington; and Mr. H. Serson. Special thanks are also due to S. Norton and B. Clarke of Arctic Sciences Ltd. for their dedication in preparing the manuscript, and to S.D. Ball of the Institute of Ocean Sciences for her aid in preparation of the maps. Credit for most of the computer program development goes to S. Oberski and R. Chave of Arctic Sciences Ltd.

SPECIAL CREDITS

L.S.C. Thomson - Technical editing.

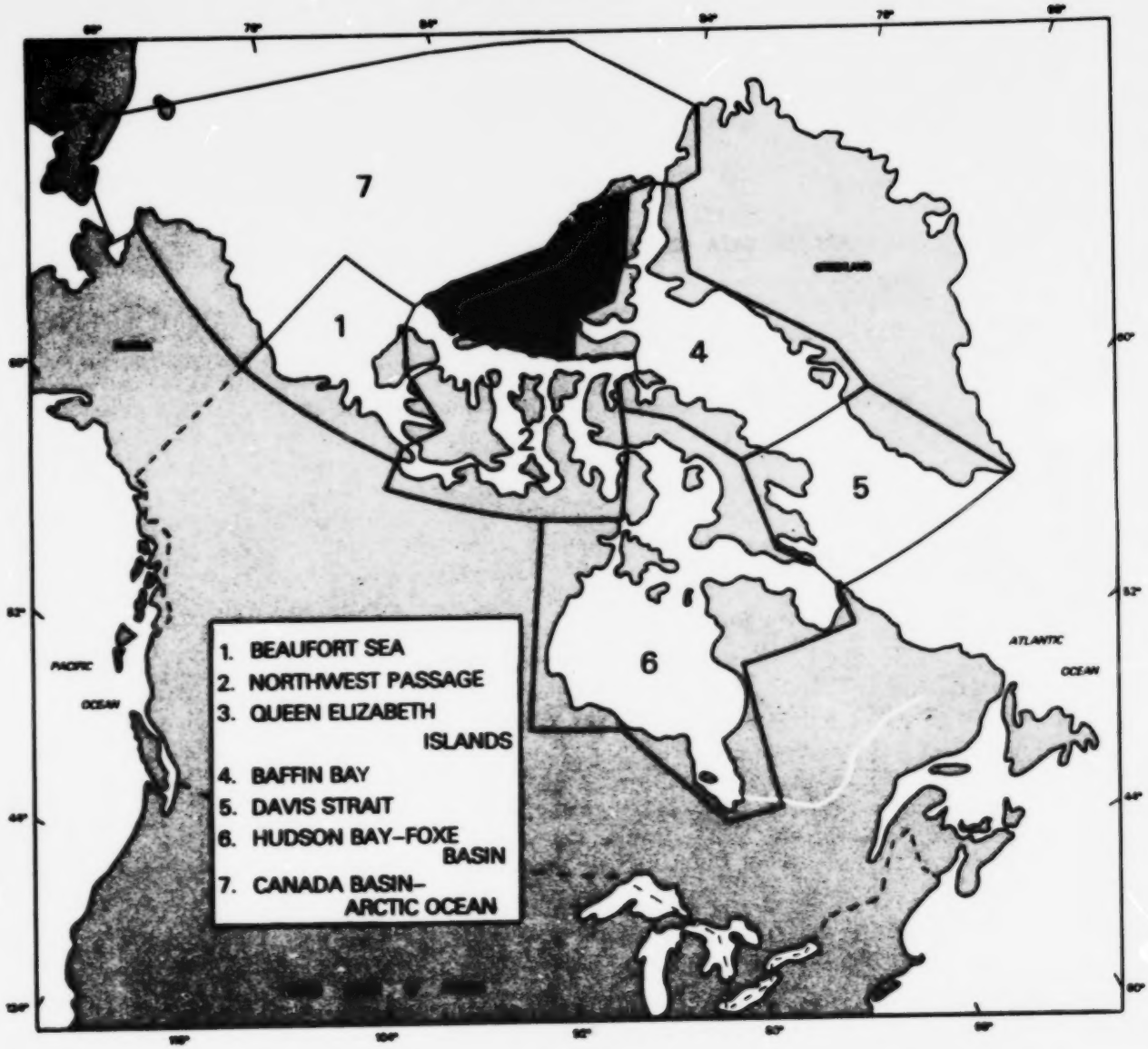
Funding for this work was provided by:

Department of Fisheries and Oceans (DFO);
Department of Indian and Northern Development (DIAND);
Dome Petroleum Ltd.; and
Panarctic Oils Ltd.

ARCTIC DATA COMPILATION AND APPRAISAL

VOLUME 6

QUEEN ELIZABETH ISLANDS: PHYSICAL OCEANOGRAPHY



The area covered by this volume is shaded in the map above.

VOLUME 6: Queen Elizabeth Islands: Physical Oceanography Temperature, Salinity, Currents and Water Levels

VOLUME ABSTRACT

This inventory contains a catalogue of physical oceanographic data from the Queen Elizabeth Islands. Times and locations of measurements are listed and displayed graphically for temperature-salinity, current meter, water level and drifter data. Meteorological and ice information are not included. Yearly plots showing the locations of all measurements are included, as are indexes by area and measurement types. References and sources are listed for all data included in the inventory.

Key words: Queen Elizabeth Islands, currents, inventory, salinity, temperature, tides, water properties.

1. INTRODUCTION

In this report, the physical oceanographic data collected in the channels of the Queen Elizabeth Islands are catalogued. The information provided includes the time and locations of measurements, the parameters measured, and the type of instrumentation. The data themselves are not included but a source for the data and any reports or references are cited wherever possible. This will enable potential users of the data to determine what is available in their area of interest, or what data were collected using a specific measurement technique, and whether or not that data may be of value.

A total of 86 data sets collected from 1948 through 1981 are catalogued and inventoried. Very little data were collected before 1948 (see Section 3), and these measurements are crude by today's standards.

The data inventory is ongoing. As new data and previously inaccessible data become available, they will be added to a computerized data base maintained at the Institute of Ocean Sciences, Sidney, B.C. Information concerning new data sets, older data sets which are not in the catalogue, or errors, should be submitted to the Ocean Information Section of the Institute of Ocean Sciences.

2. STUDY AREA

The study area, as shown in Figure 1, consists of the waterways of the Queen Elizabeth Islands of the Northwest Territories extending as far east as Ellesmere and Devon islands. It includes the central area of the Sverdrup Basin (Hazen Strait, Desbarats Strait, MacLean Strait, Belcher Channel, Norwegian Bay) along with the connecting channels to Parry Channel to the south (Crozier and Pullen Straits, Kellett Strait, Crozier Channel, Fitzwilliam Strait, Byam and Austin Channels, McDougall Sound, Wellington Channel) to Fram and Jones Sound in the southeast (Cardigan Strait and Hell Gate), and to the Arctic Ocean in the north and west (Ballantyne Strait, Wilkins Strait, Prince Gustaf Adolf Sea, Peary Channel, and Sverdrup Channel). In addition, the study area encompasses the water channels of the west coast of Ellesmere Island, including Greely Fiord, Nansen and Eureka Sounds and adjoining fiords.

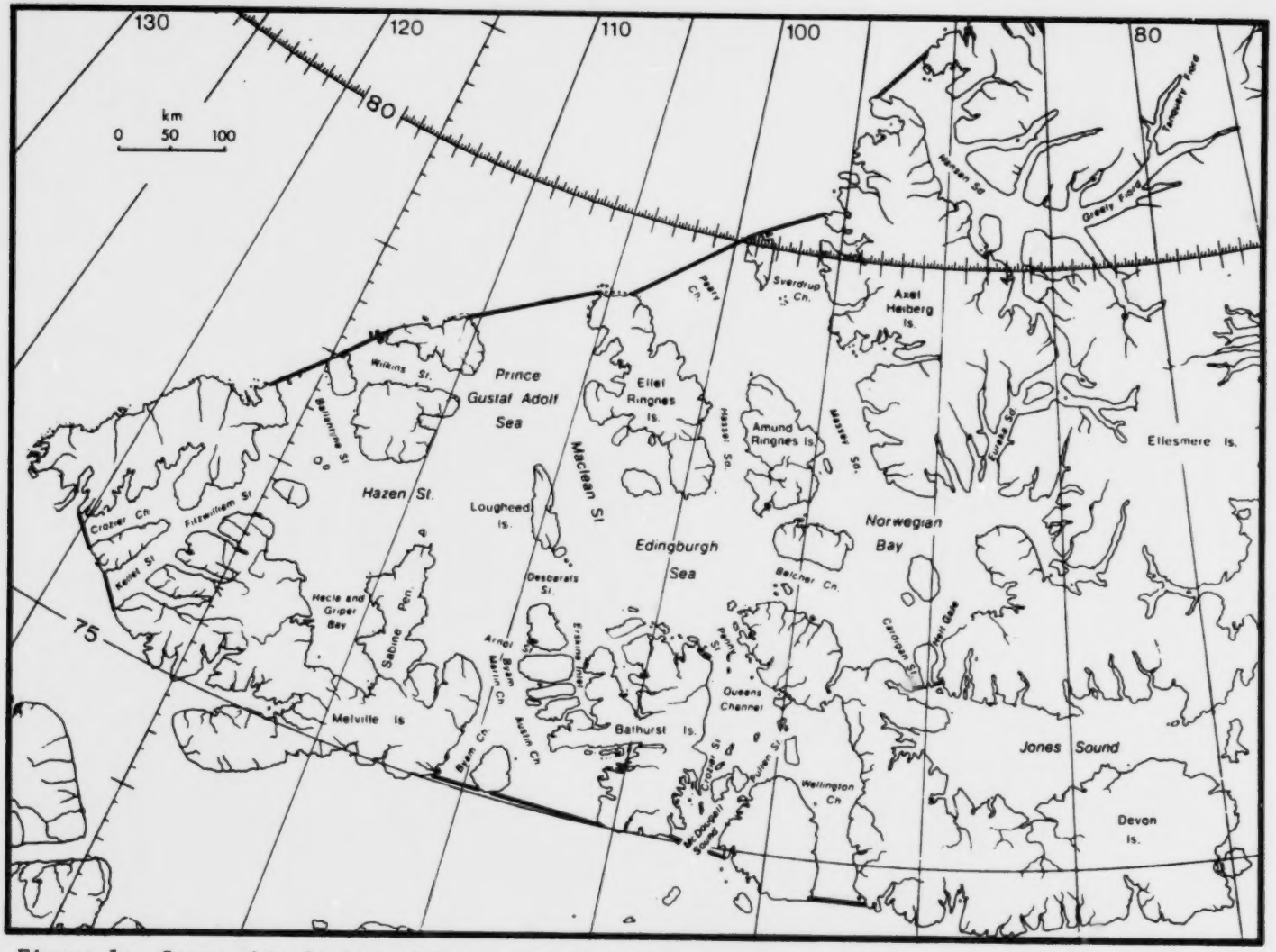


Figure 1: Geographic limits of Queen Elizabeth Islands physical oceanographic data compilation including place names.

Water depths in the area show a general tendency to decrease from north to south. The adjoining continental shelf to the north of the Queen Elizabeth Islands has a typical depth of 500 m. A similar depth range is found in the Prince Gustaf Adolf Sea, Peary and Sverdrup Channels and Nansen Sound. However, some deeper depressions occur, notably to 920 m in the Nansen Sound-Greely Fiord system, to 700 m in Peary Channel and to 600 m in Prince Gustaf Adolf Sea. In the central portion of the study area, the relatively deep waters of 400 m or more are separated into distinct basins by northward protruding zones of shallow water: such shallow zones with depths less than 200 m extend northward across Desbarats Strait to Lougheed Island and northward across Belcher Channel and Hendriksen Strait to Amund Ringnes Island. The presence of a sill between Nansen and Eureka Sounds restricts horizontal water movements to depths above 120 m.

The depths of passages at the southern limit of the study area are limited to 100 m in Hell Gate, 170 m in Cardigan Strait, 160 m in Penny Strait, 120 m in Austin Strait, 100 m in Byam Strait and 250 m in Fitzwilliam Strait.

An important factor in determining the extent of oceanographic data is the sea-ice coverage. Where present in sufficient quantity and thickness, sea-ice can provide a stable platform for the collection of oceanographic data. However, at times when sea-ice is breaking up or forming, oceanographic data collection is severely hindered.

During the winter months, ice conditions are severe in the study area. Typically, the area is covered by a combination of first-year and multi-year sea-ice floes. The multi-year ice floes often originate in the Arctic Ocean and are carried south into the region by the winds and currents. In many of the channels, the horizontal displacements of the ice-cover is limited to 15 m or less during winter. Polynyas (areas of open water or thin ice) have been known to occur in some of the southern channels, particularly in Hell Gate and northern portions of Wellington Channel. In most of the study area, the winter sea-ice provides a stable platform, useable for such activities as drilling for oil and gas, and collecting oceanographic data.

In summer, the ice coverage is less extensive, with large variations occurring from one year to another. Normally, the eastern portion of the central area (MacLean Strait and Norwegian Bay into Eureka Sound) exhibits considerable amounts of clearing, while further to the west, the region remains under seven-tenths or more of ice cover. The southern channels in the east clear out, often completely, while the more westerly channels can partially clear, but seldom completely.

3. HISTORICAL DATA

The first oceanographic data obtained in the area were bottle cast measurements of temperatures and salinities collected by government agencies in the late 1940's and the 1950's and 1960's. These data were usually of a reconnaissance nature, collected from icebreakers during the limited navigation season (e.g. Bailey, 1957) or from the ice using aircraft support from the Polar Continental Shelf Project's base in Resolute, N.W.T. (Collin, 1961).

In the 1970's, with the increasing activity associated with the search for oil and gas in the region, both government and industry mounted more extensive oceanographic programs (Figure 2). The most active company, Panarctic Oils Ltd., began offshore exploration in 1974. For engineering design purposes, information on the ocean currents was required, since no previous current data were available for the area. In addition, ocean current data along with water property (temperatures and salinities) and water level data were collected to satisfy oceanographic environmental operating conditions, established by the federal government. The data collection program has been carried out each winter and spring from 1974 up to the present. Since all logistics are provided in conjunction with the exploratory offshore drilling program, the Panarctic data are confined to the winter and spring periods, at offshore exploration sites.

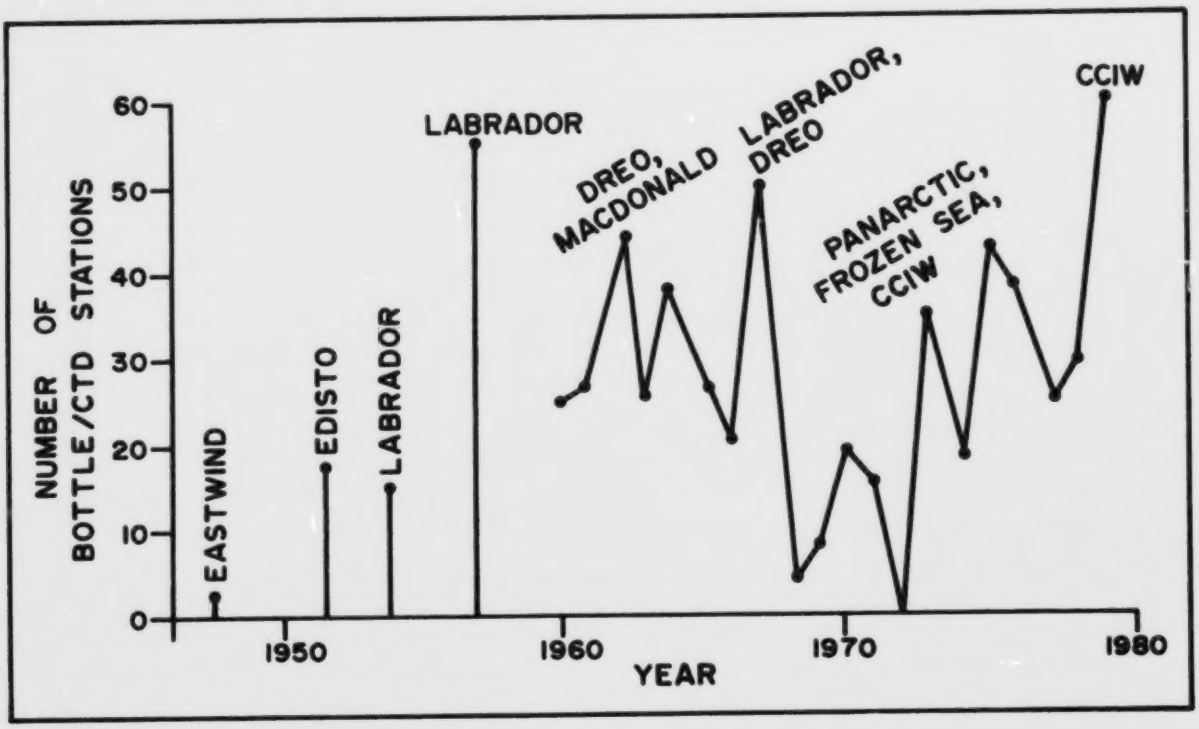


Figure 2: Plot showing level of effort of oceanographic data collection in the Queen Elizabeth Islands.

In addition to Panarctic, other companies have been involved in oil and gas exploration or related ventures in the region and, as part of their activities, they have collected some oceanographic data. Oceanographic data were collected by the Polar Gas Consortium in April and May of 1980 between Lougheed and Melville islands. These data consist of ocean current and water level measurements. In addition, near-surface current meter data were collected by Petro-Canada between 1977 and 1979 in central portions of the

study area (Hazen Strait, MacLean Strait, Byam Martin Channel and the Edinburgh and Prince Gustaf Adolf Seas).

Various agencies of the federal government have been active during the 1970's in collecting oceanographic data, in response to the increasing development activity. The agencies involved are:

- the oceanographic unit at the Canada Centre for Inland Waters (CCIW) in Burlington, Ontario (now Bayfield Marine Laboratory) who have conducted oceanographic programs in the areas since 1976;

- Canadian Hydrographic Service, Tides and Water Levels, at CCIW who have collected water level data at various sites in the study area in recent years; and

- Frozen Sea Research Group of the Institute of Ocean Sciences, Sidney, B.C. who have carried out oceanographic studies in the fiords of western Ellesmere Island and, later, in several of the passages connecting the Sverdrup Basin with the Northwest Passage.

4. GENERAL REPORT LAYOUT AND USER INSTRUCTIONS

4.1 DATA SETS

The data are organized in sets, where each set consists of data of a common type taken on a single expedition or cruise, usually by a single institution or organization. Thus, unless otherwise noted, all the data within a single set is assumed to have been collected in a uniform manner and should conform to a common standard of measurement.

Each data set has been assigned an identification number of the form yy-nnnn, where yy = last 2 digits of the year in which data were collected and nnnn = order of identification for that particular data set for that year. The data set number is a unique identifier which applies throughout the entire series of inventories; any set identified, for example, as 72-0009 is the same data set no matter where the reference to it is made. Gaps may appear in the sequence of data set numbers in this inventory for a particular year, because each data set will not appear in every discipline and geographical area.

4.2 INVENTORY ORGANIZATION

Table 1 (Section 8) lists all the data sets in the inventory in order by data set number. It provides a summary description of each set including the times, areas and methods of measurements. Table 1 also gives a listing of concurrent measurements from other disciplines.

Geographical and measurement type indexes are in Section 10. The sub-areas in the geographic index are shown on the map in Figure 1. Section 10 also contains an index of references, ordered by data set number. It is primarily an index of original data reports, although ancillary papers analyzing or discussing the data are listed if they came to our attention.

Measurement locations are plotted in a series of maps in Section 9. Two different maps, both in Lambert Conformal Conic projection, have been used to plot data (Figure 3). In most cases, an overall map of the entire Queen

Elizabeth Islands (scale 1:4,750,000, standard parallels 76° and 80°N) is used, however an enlarged map (scale 1:2,000,000, standard parallels 78° and 82°N) of the Nansen-Eureka Sounds area is also used to better display the more closely spaced stations in that area. The coastlines have been smoothed and small islands have been removed to avoid clutter. A key to the symbols on the maps is presented at the beginning of Section 9.

Detailed listings of the times and locations of individual measurements are in Section 11. There is a separate listing for each data type. The beginning of Section 11 explains the format of the listings.

Data sets were rated according to the criteria in Section 5. The ratings are listed in Table 1. Appendix 1 contains comments explaining the reasons for low ratings, a list of any errors found in each data set, and any other pertinent remarks concerning the data. The comments are ordered by data set number.

Section 6 contains a general description of the extent of the data available in the Queen Elizabeth Islands. Sections 6.1 and 6.2 describe its geographical and seasonal distribution. Section 6.3 tabulates instances of repeated measurements in the same area, and instances where measurements were carried out simultaneously, in different areas, or by different agencies.

4.3 SAMPLE USE OF THE INVENTORY

A typical use of the inventory might go as follows:

1. Consult the indexes in Section 10 to determine which data sets contain appropriate measurements in the desired areas.

2. Consult the maps in Section 9 to determine the number and disposition of measurements.

3. Refer to Table 1 for an overall description of each data set including the dates spanning the measurement period and an abbreviated listing of sources for the data.

4. If more specific information is required concerning the timing or location of individual measurements in the set, refer to Section 11.

5. Refer to Table 1 and Appendix 1 for information concerning the instruments and methods used in collecting the data, estimates of its accuracy and its overall rating.

6. Consult the reference index in Section 10 for works referring to or using the data.

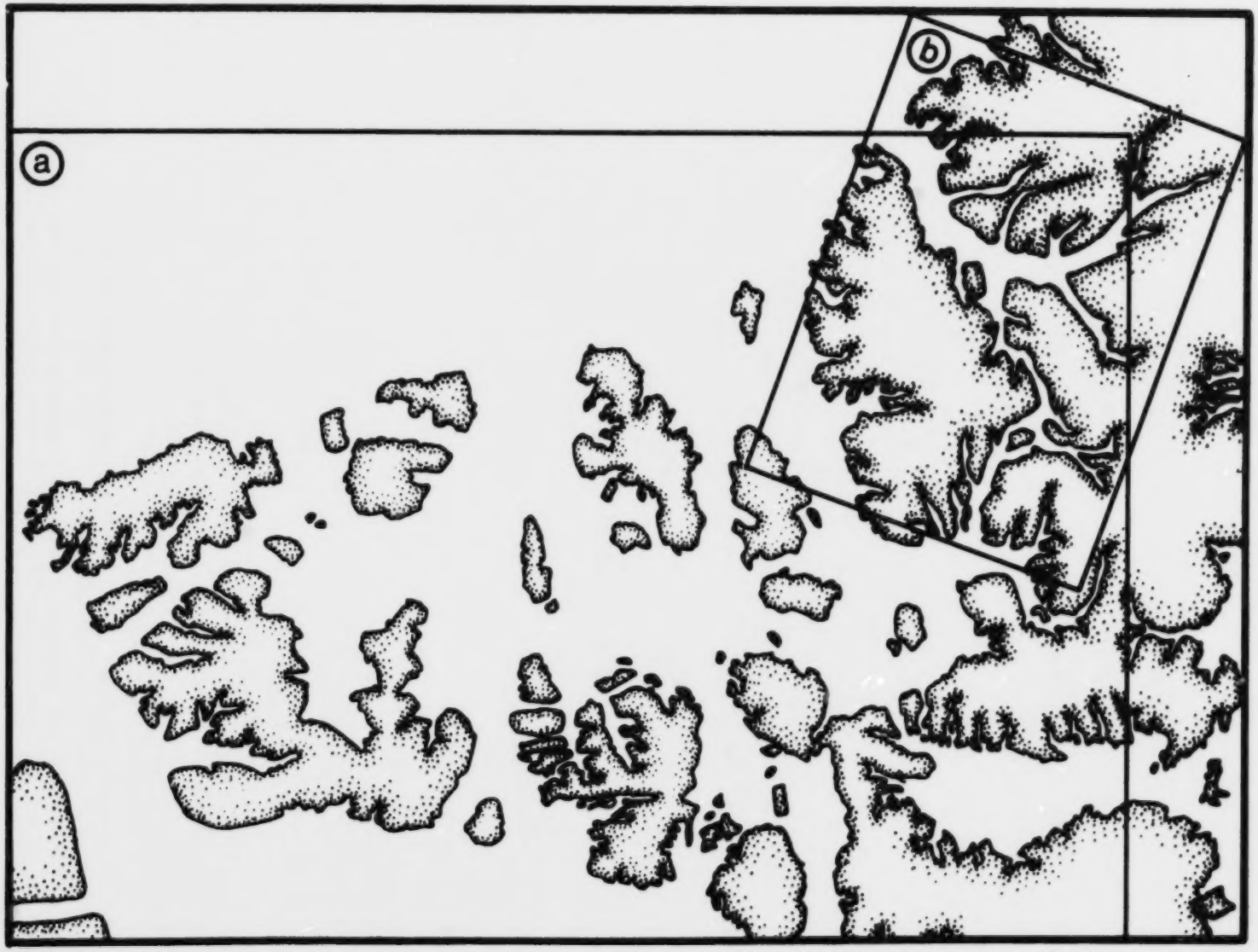


Figure 3: Maps used to plot station locations. Lambert Conformal Conic projection. Scales a) 1:4,750,000 b) 1:2,000,000.

Another example might go as follows:

1. Examine the maps in Section 9 for measurements during a particular year, and note the data set numbers of interest.

2. Refer to Table 1 to find the range of measurement dates, measurement methods and accuracies and data sources.

3. Continue with steps 4, 5 and 6 from the first example.

5. DATA RATING, APPRAISAL

5.1 TYPES OF DATA

5.1.1 BOTTLE CAST DATA

These data consist of temperature and salinity measurements at discrete depths (ideally the international standard depths) by means of reversing thermometers and sampling bottles. Temperature accuracies of 0.01°C may be achieved by averaging two or more carefully read, well-calibrated thermometers. Some investigators have used hydrometers ($\pm$0.2°/oo) and refractometers ($\pm$0.5°/oo) for the determination of salinity, but up to 1960 salinity was usually obtained by titrating the water samples drawn from the bottles; replicate titrations in the hands of a good operator could yield results precise to 0.01°/oo. In the 1960's, salinometers measuring salinity via the conductivity of the sample replaced titrations. A precision of 0.003°/oo can be obtained with the better instruments, although in the past, systematic errors of 0.02°/oo or more could be introduced by variations in the standard water used to calibrate these instruments. New international standards for salinity should eliminate the latter source of error (Lewis and Perkin, 1978).

5.1.2 CTD DATA

CTD data are data produced by in-situ profiling instruments variously called STD (salinity-temperature-depth), STP (salinity-temperature-pressure), CTD (conductivity-temperature-depth) or CTP (conductivity-temperature-pressure) profilers. Fundamentally, all are CTP devices; the variations in output and name depend solely upon the degree of internal data processing. All instruments perform the same basic function of measuring (more or less continuously) temperature and conductivity as a function of depth. The precision achievable with such devices depends upon the individual instrument. The best are capable of a precision of 0.005°C and 0.005°/oo, although accuracy in salinity, until recently, was limited to approximately $\pm$0.02°/oo because of the inconsistencies in salinity standards and definitions (Walker and Chapman, 1973).

5.1.3 BATHYTHERMOGRAPH

The bathythermograph (BT) is a thermo-mechanical device which measures water temperature as a function of pressure. Its information is produced as a trace on a smoked glass slide which can be read to an accuracy of $\pm$0.2°C and $\pm$2 m depth if well calibrated. The BT was widely used in conjunction with reversing thermometers but has largely been superseded by the CTD.

5.1.4 SELF-RECORDING CURRENT METERS

By the 1970's oceanographers could practically and reliably place and recover self-recording current meters in the water column. In the Arctic, such meters are moored from the sea floor, or hung beneath the ice surface. Meters of this type generally record internally on magnetic tape (in some models photographic film or paper charts were used) or, rarely, telemeter data to a ship- or shore-receiving station. They generally provide time series of current speed and direction, and may have other sensors (such as temperature, pressure or conductivity) mounted as well. Current speed and direction are usually measured by one of two methods: either by a propellor or rotor for measuring speed and a vane for direction sensing, or by measuring two orthogonal components of the current speed. Component speeds may be measured by propellors, electromagnetic, or acoustic speed sensors. Direction reference is provided either by a magnetic compass or in the case of instruments mounted from ships or from the ice, by using torsionally rigid suspension materials which allow directional reference to be fixed at the surface. Commonly used instruments employing the propellor and vane system are the Aanderaa and Hydroproducts meters; those employing the component measuring system are the Cushing and Marsh-McBirney instruments (electromagnetic), the Neil Brown (acoustic), and the Davis-Weller (orthogonal propellors) instruments.

The precision and accuracy of current meters depend to a great degree both on the design of the instrument, and on the environment in which it is used. Serious problems are encountered if rotor-type meters are used in the wave zone. Calibration drift and sensor fouling can interfere with satisfactory operation of electromagnetic and acoustic sensors. The sampling frequency and integration period selected for the meter can also affect the accuracy of the record.

Special problems in direction measurement are encountered when using compasses in the Canadian Arctic because of the weak horizontal component of the magnetic field due to the proximity of the magnetic pole. Directional accuracies are generally degraded unless the current meter is oriented at the surface via rigid coupling.

The vast majority of current meter data were obtained using Aanderaa RCM-4 current meters, fitted with small vanes to allow deployment through holes in the ice. While the Aanderaa current meter is widely used by oceanographers throughout the world, both the speed and direction sensors have some limitations. Current speeds in this area are frequently below the stall speed of the Savonius rotor, so that at some stations a zero current is recorded nearly 50% of the time. In addition, there may be increased risk of the direction vane becoming stuck because of deposits of biological origin (or other causes) in a low energy environment. Both types of problem did arise quite frequently resulting in reduced data recovery rates and limiting the types of numerical analysis that can be performed on the records.

5.1.5 PROFILING CURRENT METERS

These current meters provide a series of point measurements of current speed and direction at several depths throughout the water column. Meters used for this purpose are generally of the propellor or rotor and vane design, the oldest common example being the Ekman meter. Measurements usually are

taken from the ice, or from an anchored ship in shallow water. In water too deep for anchoring, a very good positioning system is required to correct for ship movements. The directional precision of the measurements can be degraded by the proximity of the magnetic pole. Unless repeated profiles were taken so as to form a time series, this type of data were not generally catalogued (see Section 12).

5.1.6 SATELLITE-TRACKED DRIFTERS

Satellite-tracked drifters are a comparatively recent invention, dating from the early 1970's. Widespread use of these devices began after the launch of the Nimbus VI satellite carrying the Random Access Measurement System (RAMS) in 1975. In early 1979, the TIROS-N satellite was launched activating System ARGOS which is now used to track all devices.

Both RAMS and System ARGOS compute position from the Doppler shift of a signal transmitted from the buoy to the satellite. On each pass of the satellite the position (and any other data being measured) is received and sent to a ground facility where the data are processed. The RAMS system produced positional accuracies of approximately $\pm$2 km. Prior to summer, 1978, RAMS produced an average of 8 valid fixes per day in northern latitudes. During the remainder of 1978, the number of fixes per day declined to 4 and then to 2 by the end of the year. The ARGOS system has an average positional accuracy of $\pm$1.2 km, and produces an average of 10 valid position fixes per day in northern latitudes (Fissel, 1980b).

5.1.7 RADAR OR AIRCRAFT-TRACKED DRIFTERS

This type of drifter usually consists of a float (with or without a drogue) and a radar reflector or visual marker. These devices can be tracked visually or by radar from shore or from a ship or aircraft. The accuracies achievable depend upon the tracking system used, and can be very good if a sophisticated system is available. Data of this type are often limited in their coverage in space and time, and may have gaps resulting from bad weather.

5.1.8 WATER LEVEL GAUGES

Water level data are produced mainly by visual observation of tide staffs, by mechanical shore-mounted float-type gauges, or by bottom-mounted pressure gauges. The pressure gauges may be self-contained, or they may consist of a pressure sensor connected to a shore-mounted recording device. The mechanical gauges (usually used at the permanent gauge locations) record by means of a pen on chart paper. The data are usually digitized at hourly intervals, resulting in a record with a resolution of approximately $\pm$1 cm, and an accuracy of the order of $\pm$5 to 10 cm. The resolution of the bottom pressure gauges varies from a millimetre to a centimetre, depending upon the instrument type and range. Sampling intervals generally vary between 5 and 60 minutes. Unless corrections are made, bottom-pressure records will also contain signals caused by variations in atmospheric pressure.

Virtually all water level data collected on behalf of Panarctic Oils Ltd. have been made with a Stephen Model 2A-35 Duplex Recorder. This instrument measures the vertical movement of the ice sheet by means of a cable attached to a weight on the ocean floor. In order to obtain the tides from these raw

data, the recordings have to be corrected for changes in freeboard of the ice, its horizontal movements, and changes in the position of the bottom weight, which might slowly sink into the mud.

Changes in freeboard of the ice are recorded by the instrument on a second channel, allowing the necessary correction to be made. Horizontal ice movements were monitored and the corresponding uncertainty in tidal height was calculated at most stations. Where necessary, corrections have been applied to the data. The third problem is almost impossible to monitor, although in some cases it was possible to estimate its influence by comparing neighbouring station records.

There is, in fact, another source of error associated with this type of instrument. According to one of Panarctic's reports, the counterweight at the surface was only 50 pounds. Although currents in this area are generally slow, it is quite conceivable that peak water velocities might exert enough drag on the cable to move the surface weight to some extent.

The data recording system is a mechanical one. Only the maximum and minimum water levels and the corresponding times were logged in from the strip charts. The timing accuracy is quoted in Panarctic's reports as $\pm$30 minutes (some earlier reports quote $\pm$1 hour). Most records obtained with the Stephen recorder are not continuous, with gaps lasting several days being quite common.

5.2 DATA RATING SCALE

5.2.1 RATING CRITERIA

The data appraisal in this inventory is intended to provide the reader with an indication of the quality of each data set and its suitability for comparison with other data sets. The appraisal was based primarily on documentation describing the methods used in collecting and processing the data and the investigator's estimate of its precision, accuracy and utility. Subsequent analyses of the data were also taken into account, i.e. if errors were found in a particular data set during a subsequent analysis, and the results were published, they were used in the assessment.

The information from the sources above was used to assign a numerical rating to each set. The rating system has five levels, defined as follows:

0: data are found to be wrong.

1: data suspect because of ill-defined doubts.

2: insufficient information, was not or could not be investigated.

3: data are internally consistent - patterns or trends within data probably real but comparison with other data sets may pose problems.

4: data are internally consistent and exhibit sufficient standardization that comparison with other 4 rated data should be possible.

5.2.2 ASSIGNMENT OF RATINGS

0 RATING

A data set received a zero rating if serious deficiencies in technique, or significant systematic errors occurred. A zero rating was also assigned if the documentation of the data set was lacking essential information (e.g. if the positions and times of measurements were not given) which no longer exists.[1]

1 RATING

A data set received a 1 rating if, either as part of a data report or in subsequent analysis and examination, the original or other investigators questioned the validity of the data without pinpointing specific errors. In general, a 1 rating was assigned if a data set exhibited an atypical distribution of values, or indicated unlikely physical processes, but contained no obvious errors. Such data sets require careful examination before use.

2 RATING

Ratings of 2 were given to data sets for which it was not possible to carry out an appraisal. Such cases include:

(i) Proprietary data, whose existence is known, but about which no details are available.

(ii) Data sets for which we were unable to obtain documentation, but know that data were collected.

3 RATING

Data received a 3 rating if they were internally consistent within the precision of the methods used to collect the data. Precision is a measurement of the degree of random fluctuation experienced when a measurement is repeated many times, while accuracy is the departure of the measurement (or the mean of a series made under controlled conditions) from the true value. Because oceanographic data are normally taken without replication and under uncontrolled conditions, data taken with instruments of a certain precision will have the same (or poorer) level of accuracy. An exception is the case of a series of temperature-salinity measurements taken within a water body of stable, well-defined characteristics, in which case the mean of the measurement series could provide a measurement more accurate than the precision.

Ratings of 3 were given to all data sets for which no evidence of errors beyond the precision given in Table 1 was found, but which did not satisfy each of the criteria required for a rating of 4 (see below).

---

[1]Note that this definition has been modified from that used in Volumes 1, 3 and 5 of this number to emphasize that data sets assigned a 0 rating are either wrong or of very limited value due to lack of documentation.

Caution should be exercised when comparing two sets of 3 rated data, as their levels of precision may be quite different. The reader should consult both Table 1 and Appendix 1 for precision and error information.

4 RATING

Data received a rating of 4 if these data were measured to the precision available with modern methods described in Section 5.1; had no evidence of systematic or other errors recorded in the documentation; and were obtained using measurement instrumentation, methodology and techniques which provide data that can be related to national or international standards.

Of all the physical oceanographic data that were inventoried, the bulk of the data is temperature/salinity measurements. Until the early 1960's, water samples were collected with bottle casts and salinity was determined by titration. During the 1960's, salinities were generally determined using conductivity bridges. From the late 1960's on, instruments which measured conductivity and temperature in situ (CTDs) became the standard. Salinity was then computed from the temperature and conductivity values.

CTDs with increased resolution have revealed gradations in salinity where previous chemical analyses indicated homogeneous water. Since both bottle and CTD data may have ratings of 3, caution must be used in any comparison.

Both methods of salinity determination depend on a standard (usually 35°/oo Copenhagen water); variability in the calibration of the instrumentation has in the past resulted in systematic errors of 0.02°/oo or more. In the past, replicate samples have been sent to various labs and the salinities determined by these labs differed by 0.01 to 0.02°/oo.

A new, practical salinity scale, where waters of the same conductivity ratio have the same salinity has been adopted (Lewis and Perkin, 1978) which reduces systematic errors in salinity. However, most of the historical data remains subject to a $\pm$0.02°/oo accuracy limitation.

Current meter data were judged by the instrument characteristics, response, and the deployment methods. The main causes of low ratings are directional errors due to inadequate compensation for the weak horizontal component of the earth's magnetic field, and contamination by mooring motion and wave orbital velocities.

Much of the water level data was received from MEDS with little supporting information. This resulted in the 2 rating for many of these data sets. It may be possible to improve the rating by further searching the files at MEDS and at the Institute of Ocean Sciences, Sidney.

6. SUMMARY OF DATA COVERAGE

6.1 SPATIAL COVERAGE, INCLUDING DATA DISTRIBUTION MAPS

The locations of all measurements are summarized individually for bottle/CTD data (Figure 4), current meter and water level data (Figure 5). The spatial coverage is far from uniform for any of the data types. The measurement sites tend to be concentrated in three sub-areas: the southern waterways adjoining Parry Channel; the central portions of the area centred around an area extending from the Sabine Peninsula of Melville Island to Lougheed Island to King Christian Island; and the channels of Nansen and Eurkea Sounds.

The areas with the least amount of data are generally located at the northern, western and eastern extremities of the region. In the channels to the west and north of Prince Patrick Island (Crozier Channel, Kellett, Fitzwilliam, Ballantyne and Wilkins Straits), there are no current meter measurements and very few water property data available. At the northern limit of the region, the same situation holds for Sverdrup and Peary Channels and Hassel and Massey Sounds. To the east, in the region of Norwegian Bay, the level of oceanographic data is limited to one current metering location and fewer than ten water property stations. Clearly for the western, eastern and northern channels of the study area, more data are required for any but the most rudimentary oceanographic studies.

6.2 SEASONAL COVERAGE, INCLUDING BI-MONTHLY MAPS

The quantity of oceanographic data varies markedly according to the time of year when the measurements were obtained. This seasonal pattern is illustrated in Figures 6-11 (temperature/salinity data) and Figures 12-17 (current meter and water level data): in each figure, the locations of available measurements are plotted according to the two-month period in which the data were obtained beginning in December-January, and continuing through to October-November. For all three measurements types, the largest quantities of data are available in the months of April and May, with lesser but significant data levels in the months of December to March inclusive and June. The predominance of measurements in the winter and spring months results from the suitability of the ice cover as a stable platform from which to collect data, beginning in the month of December. With the lengthening period of daylight hours in the spring, the months of April and May offer the best conditions for working from the ice; commencing in June or July, surface melt begins to hinder operations from the ice.

BOTTLE/CTD

The seasonal coverage of bottle/CTD data (Figures 6-11) exhibits a similar pattern to that of the current meter data: most of the data were collected in the months of April and May with reduced levels of data for December to March and June to July. In the southern channels (Wellington and Queens Channels, Penny Strait and Norwegian Bay) only water property data are also available for the months of August and September; unlike the rest of the area, these channels are navigable for coast guard icebreakers in late summer. No water property profile data are available for any part of the study area in October or November.

CURRENT METER

The amount of current meter data (Figures 12-17) is relatively large in the central portions of the study area through the months of December to June, due in large part to the data collected at Panarctic's drilling sites during this time of the year. Current meter data sets collected by government agencies tend to commence later in the year, usually in March or April. From August to November inclusive, current meter data are unavailable for all areas but Crozier Strait, where near-bottom current meter measurements at one site were obtained throughout the summer and autumn months (Greisman and Lake, 1978).

6.3 SYNOPTIC DATA SETS AND EXTENDED TIME SERIES

SYNOPTIC DATA SETS

In some years the existence of two or more data sets collected at the same time provides a combined data set with near-synoptic coverage over a relatively large area. Data sets were considered near-synoptic if their measurement periods overlapped significantly. The combined data sets may improve coverage within a given area, extend coverage to a larger area or allow comparison of simultaneous processes in different areas. The table below lists near-synoptic data sets by year and general area of coverage.

Data Set ID	Area
1961	
61-0003	Wellington Channel
61-0004	Wellington Channel
1978	
78-0007	Byam Martin Channel, McDougall Sound, Wellington Channel
78-0012	Wellington Channel, McDougall Sound
1979	
78-0013	Central Queen Elizabeth Islands (Hazen Strait, W. Lougheed
78-0014	Island, Desbarats Strait, MacLean Strait)
79-0017	
79-0018	
79-0019	

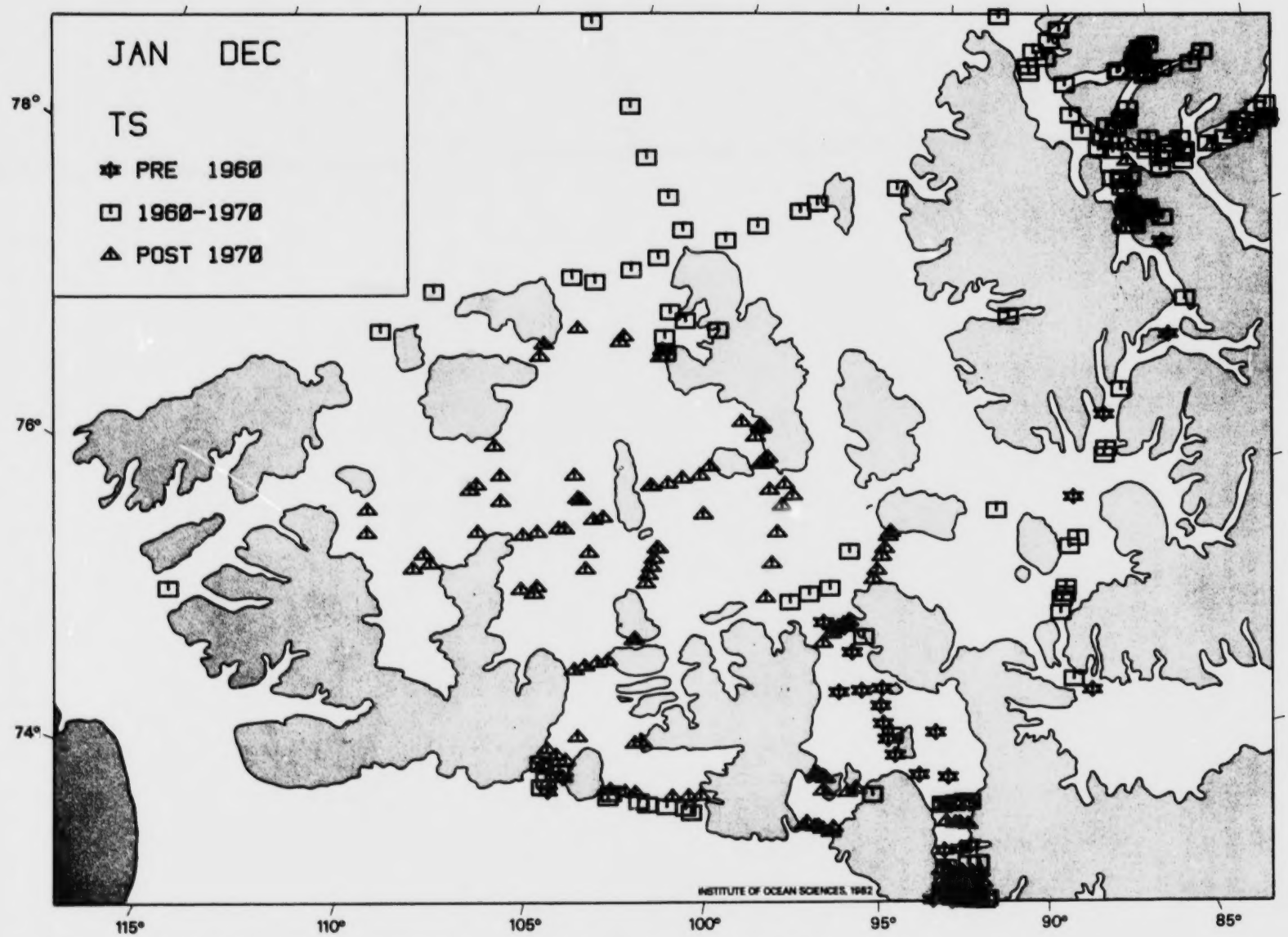


Figure 4a: The locations of all temperature and salinity measurements.

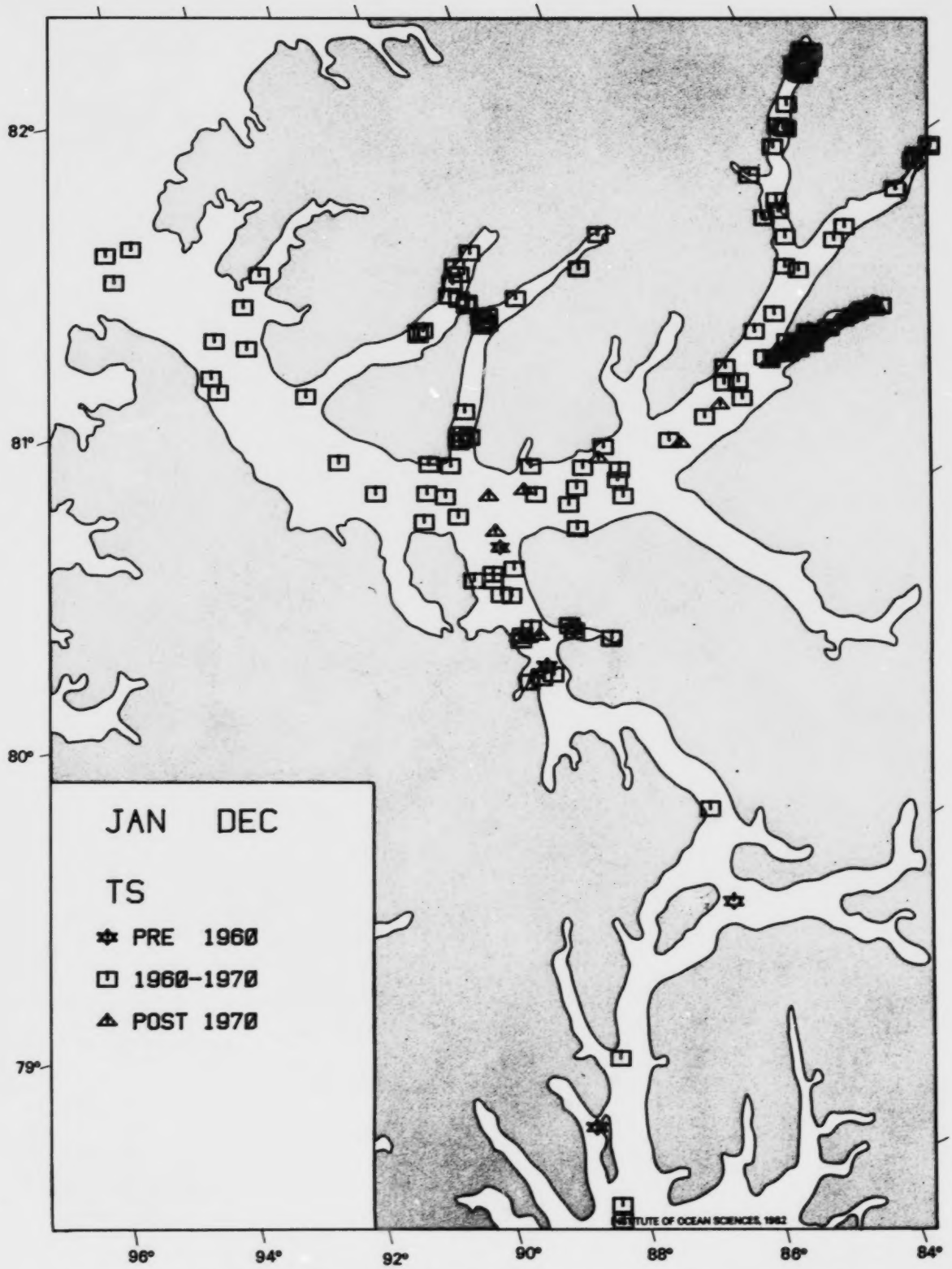


Figure 4b: The locations of all temperature and salinity measurements.

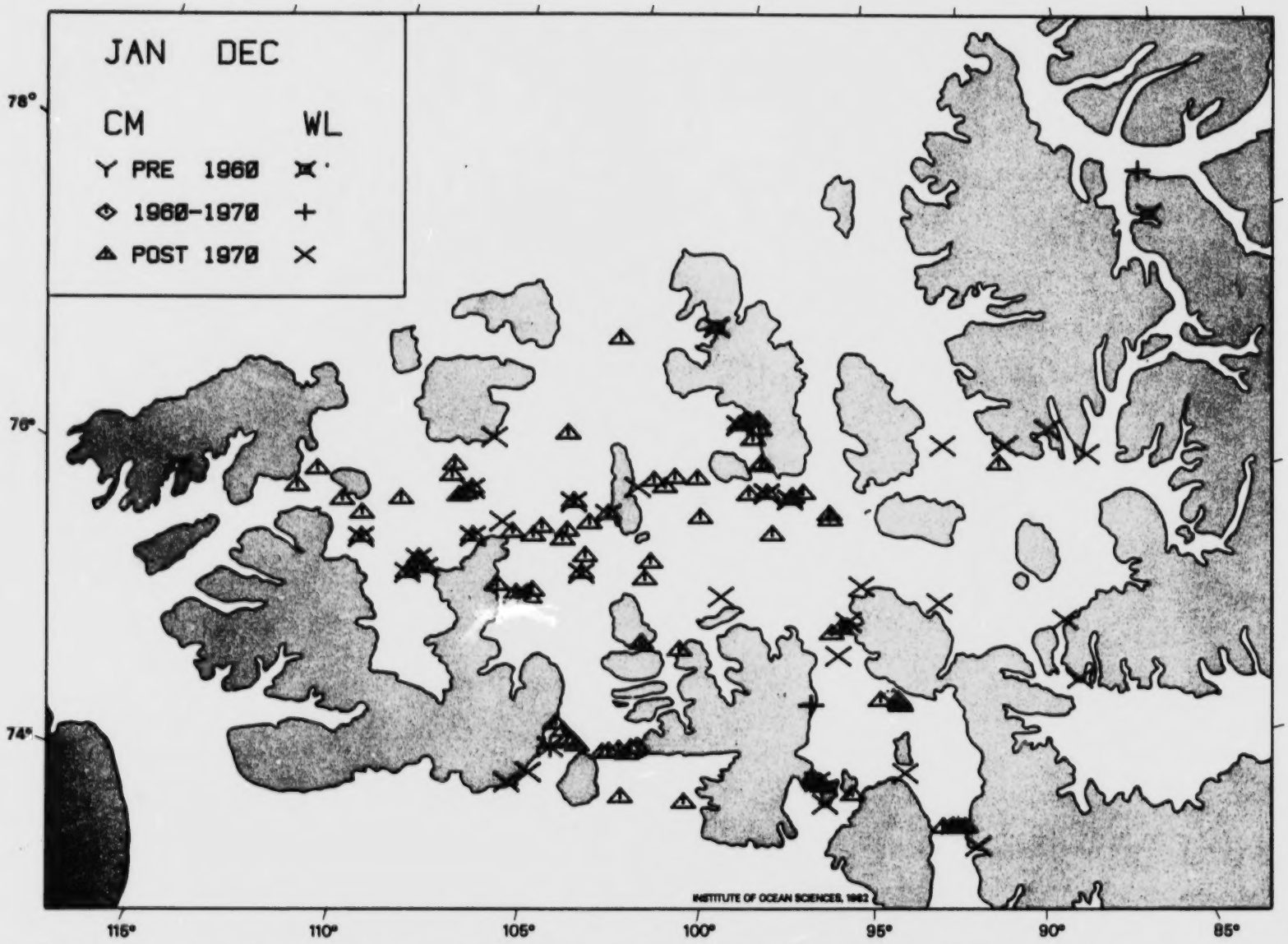


Figure 5a: The locations of all moored current meter and water level measurements.

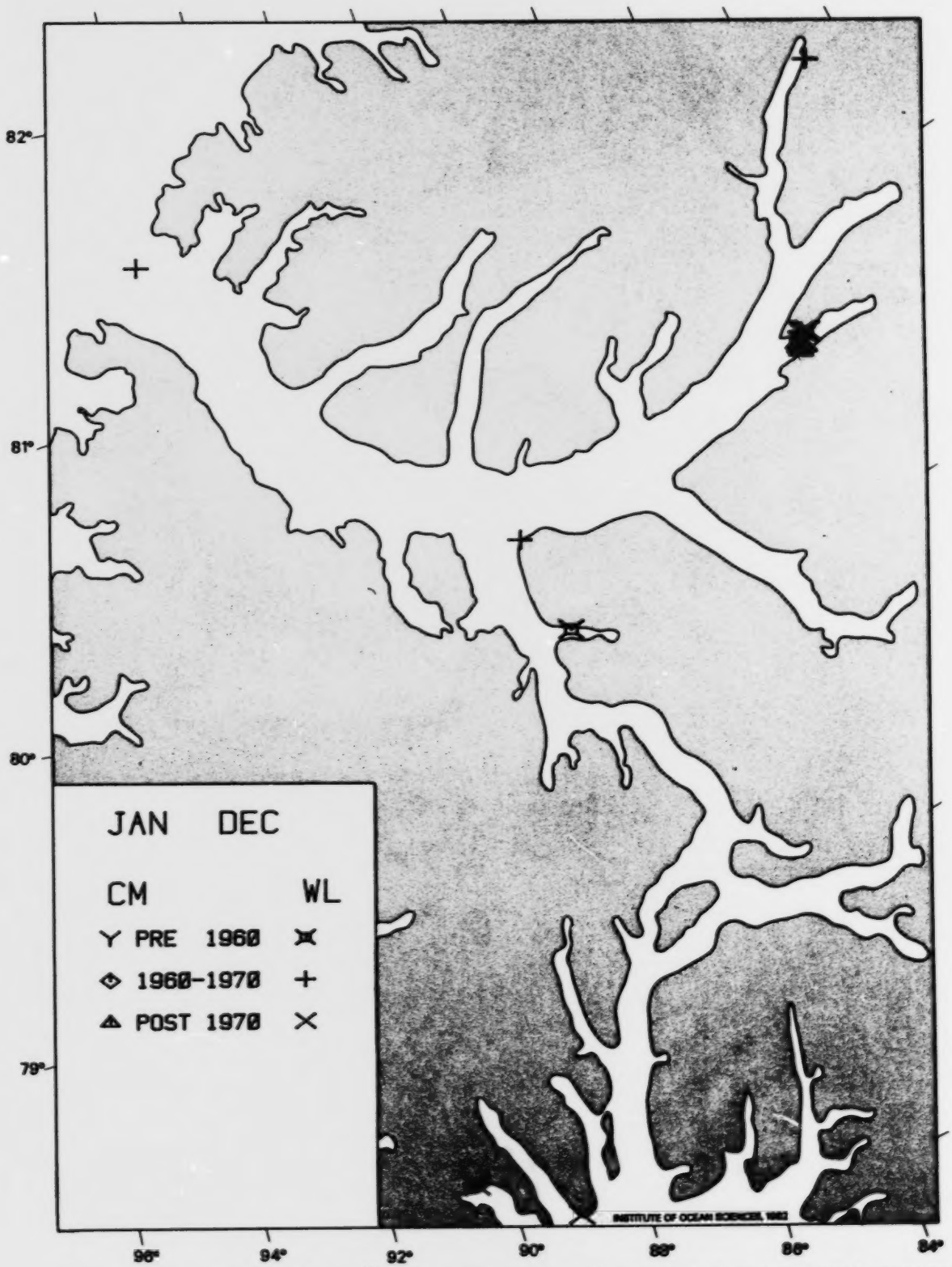


Figure 5b: The locations of all moored current meter and water level measurements.

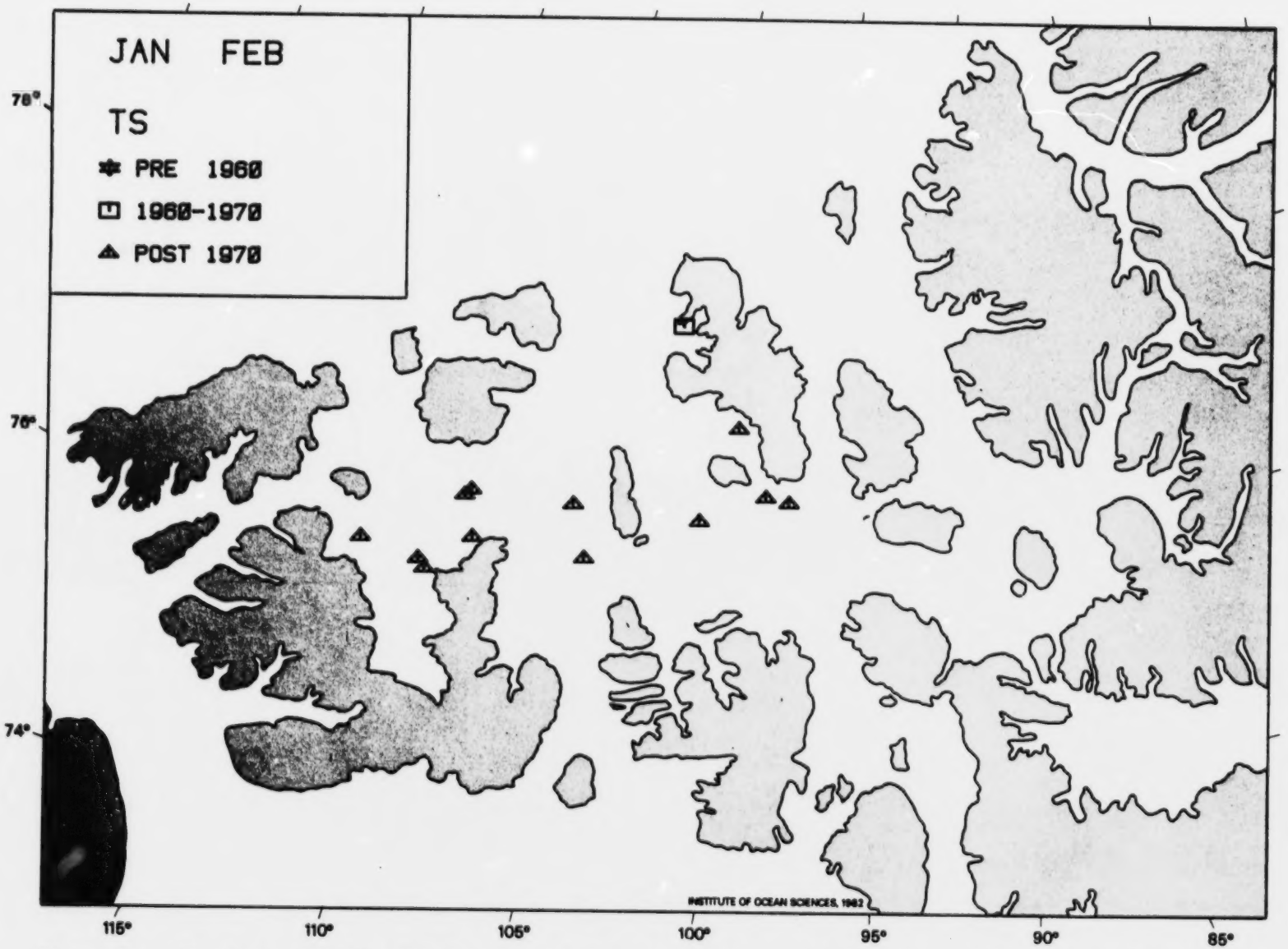


Figure 6a: The locations of temperature/salinity profile data collected during the January-February period, all years.

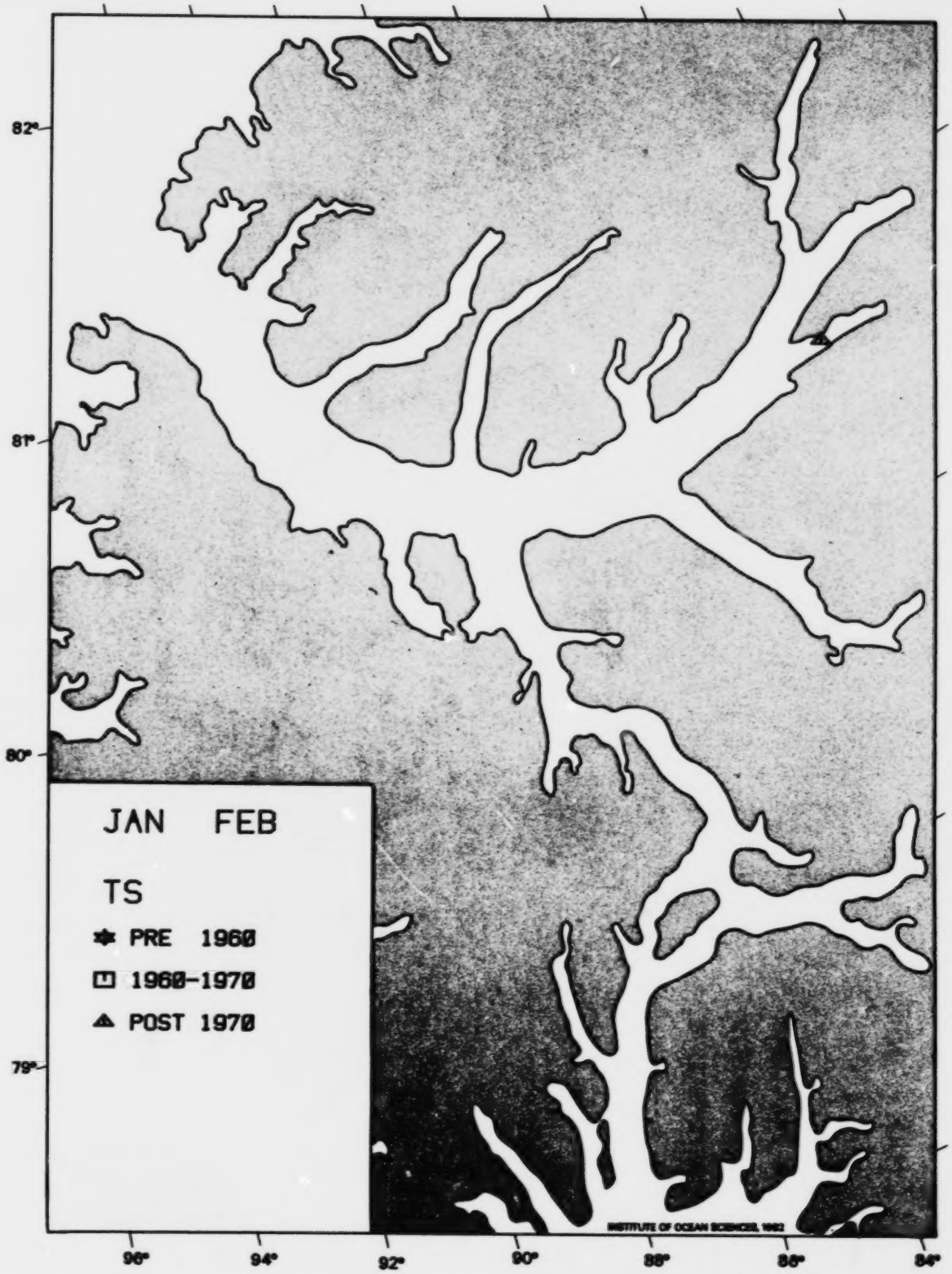


Figure 6b: The locations of temperature/salinity profile data collected during the January-February period, all years.

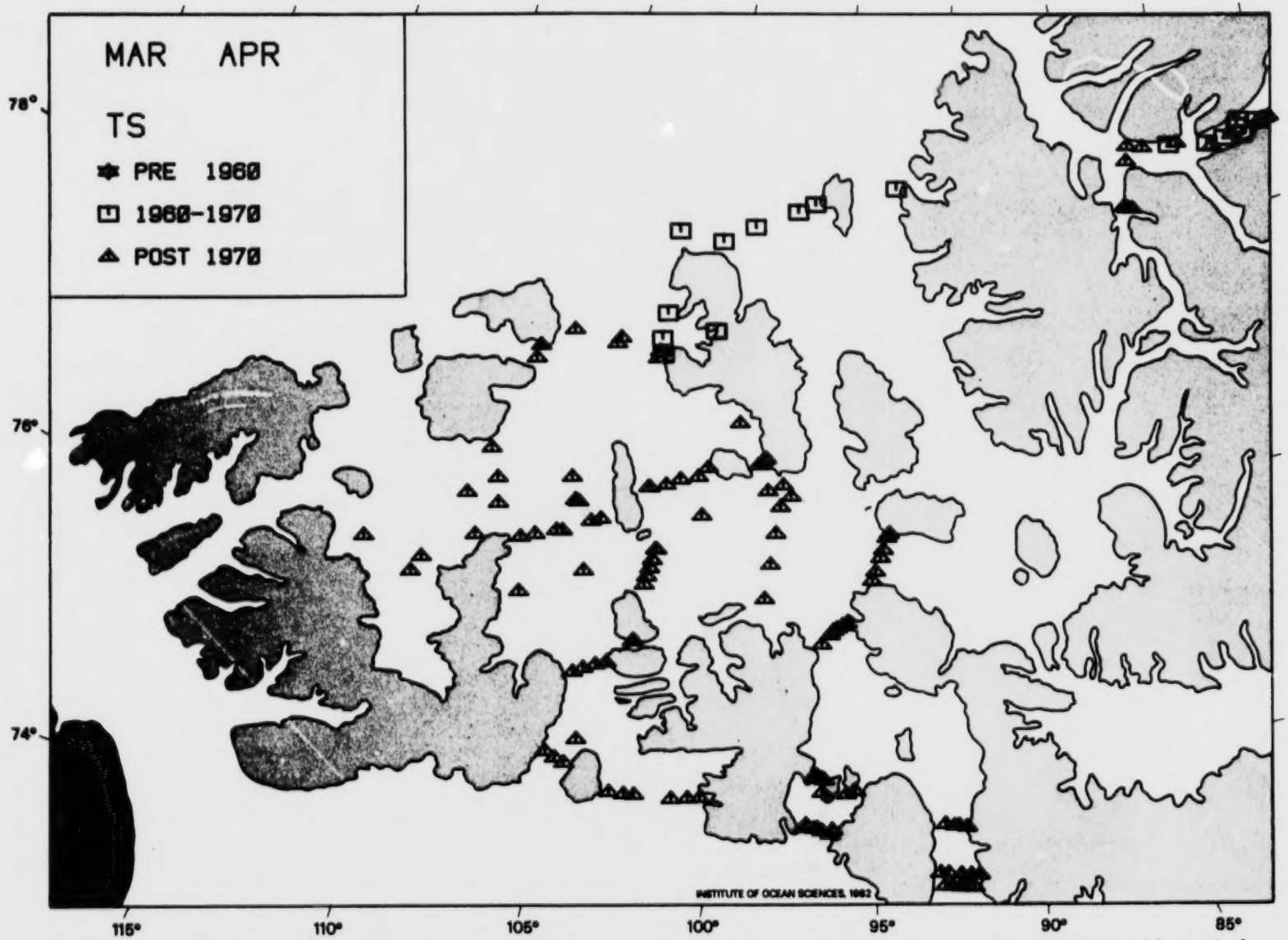


Figure 7a: The locations of temperature/salinity profile data collected during the March-April period, all years.

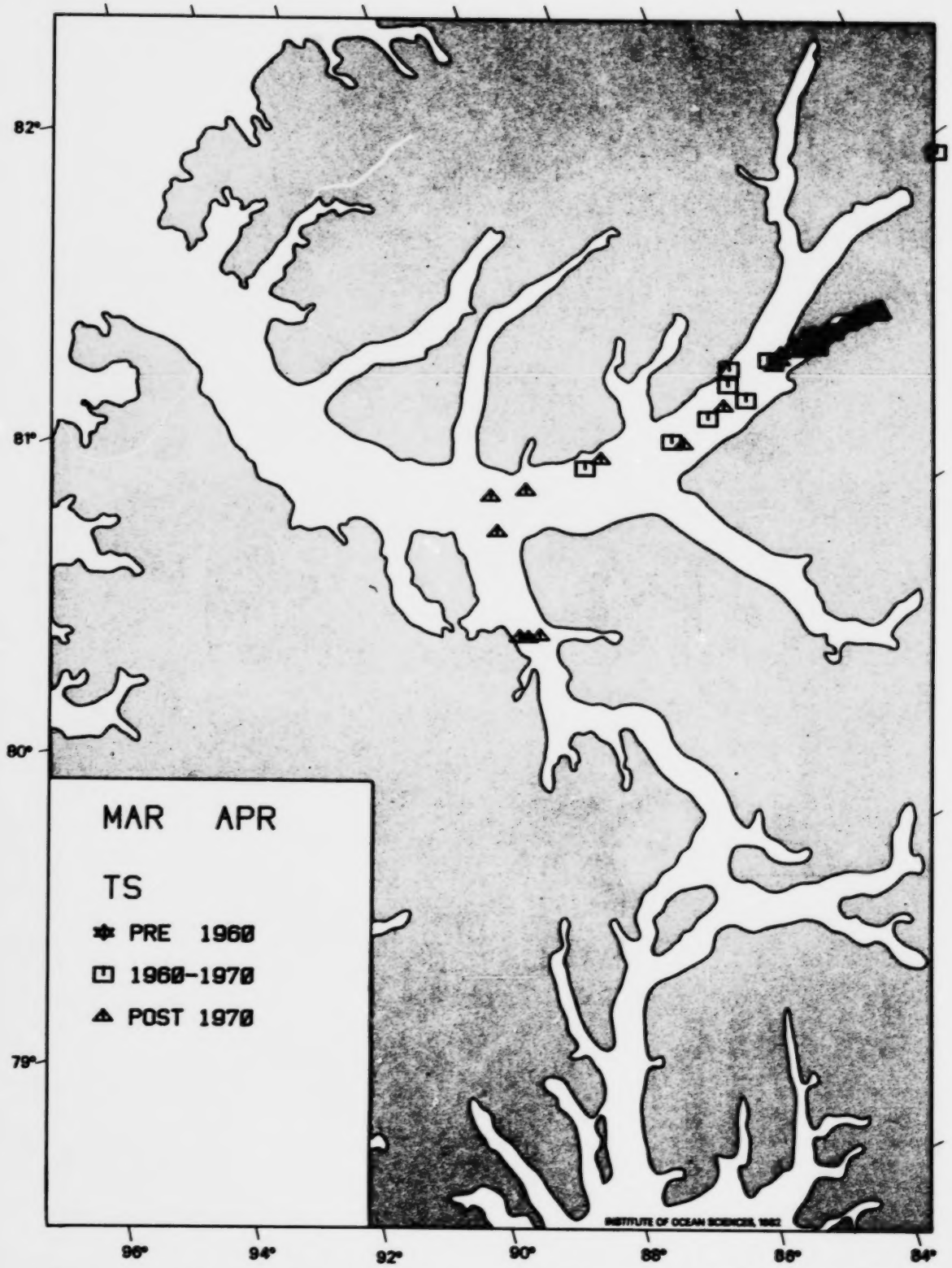


Figure 7b: The locations of temperature/salinity profile data collected during the March-April period, all years.

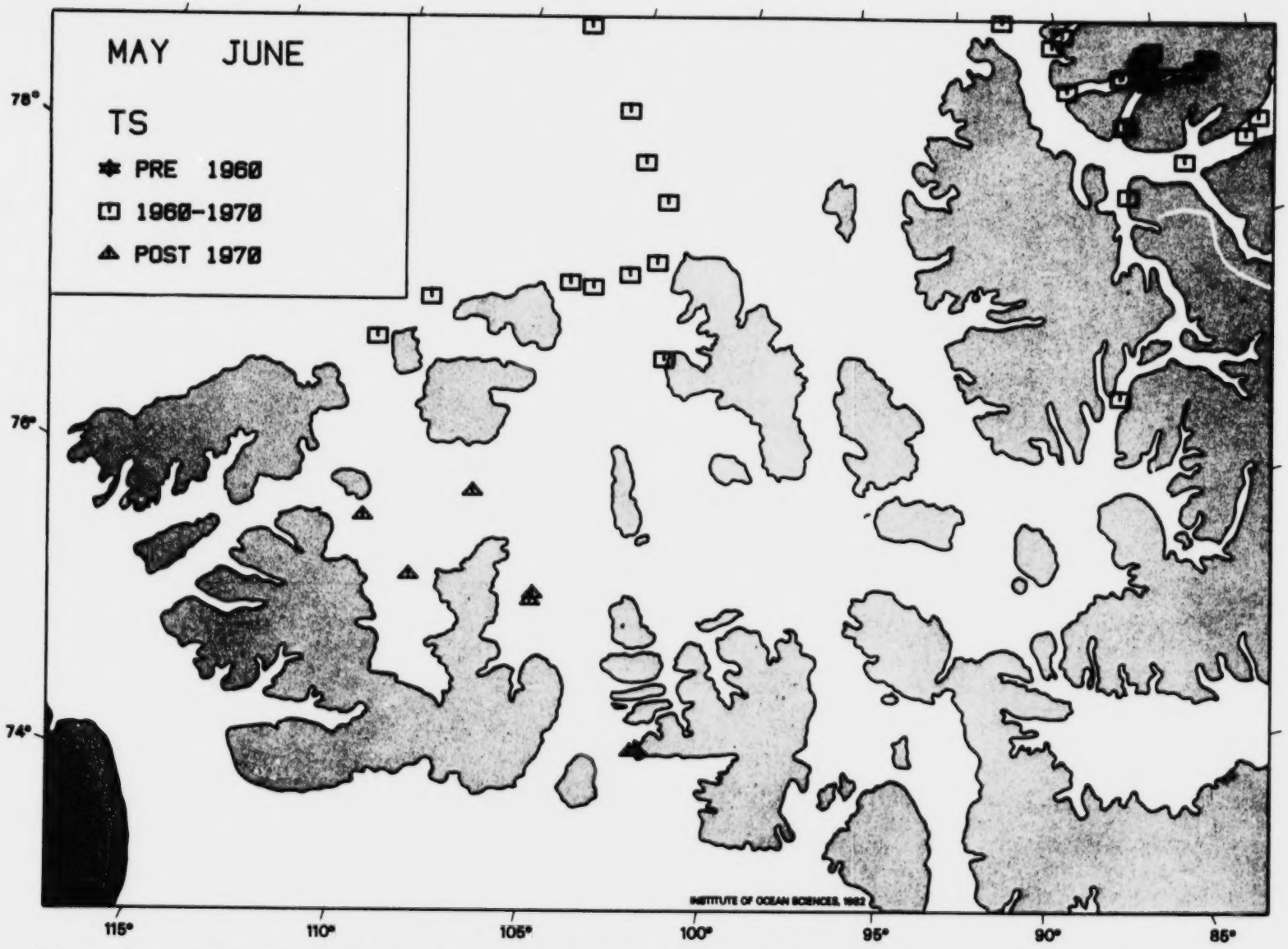


Figure 8a: The locations of temperature/salinity profile data collected during the May-June period, all years.

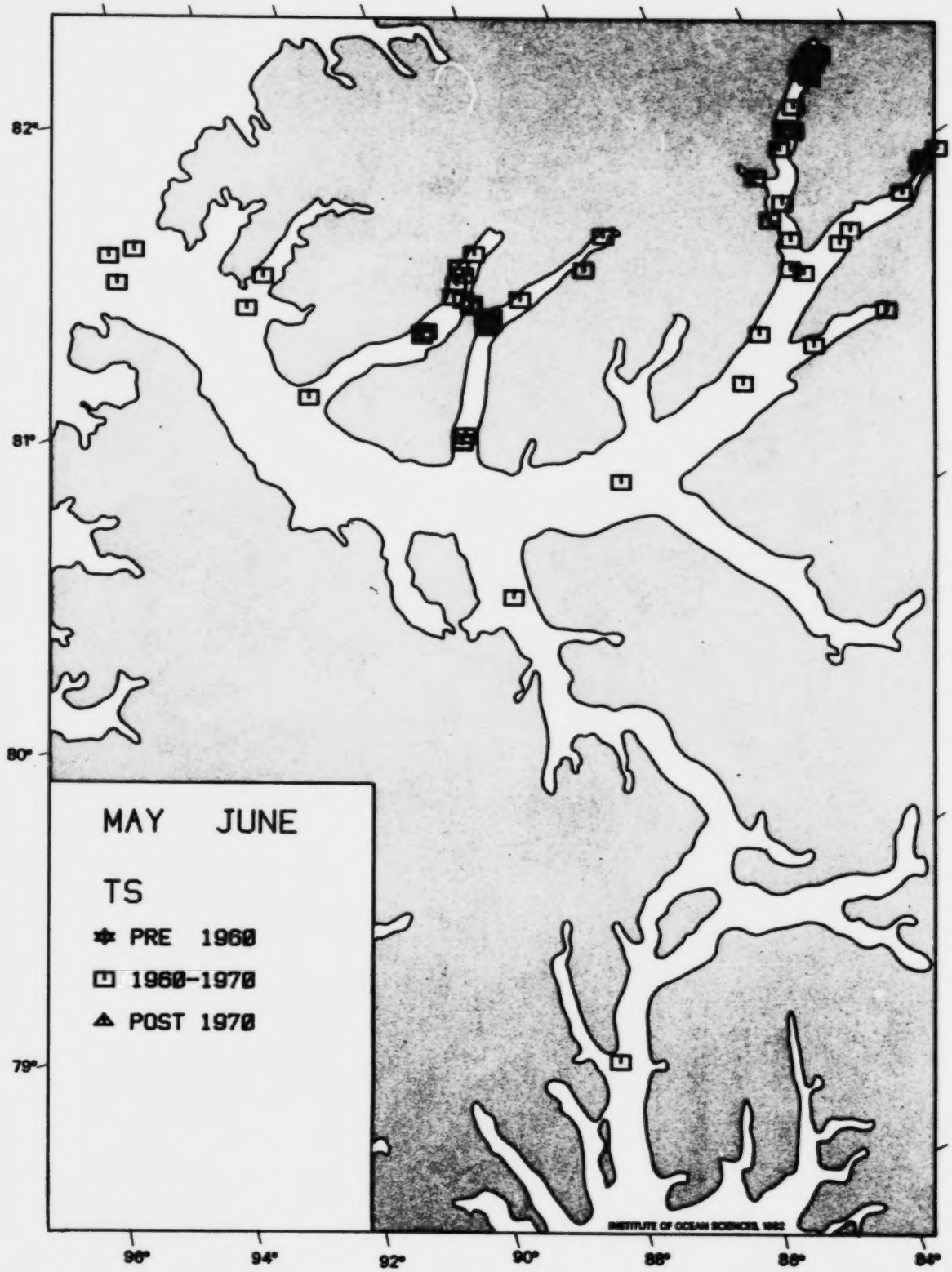


Figure 8b: The locations of temperature/salinity profile data collected during the May-June period, all years.

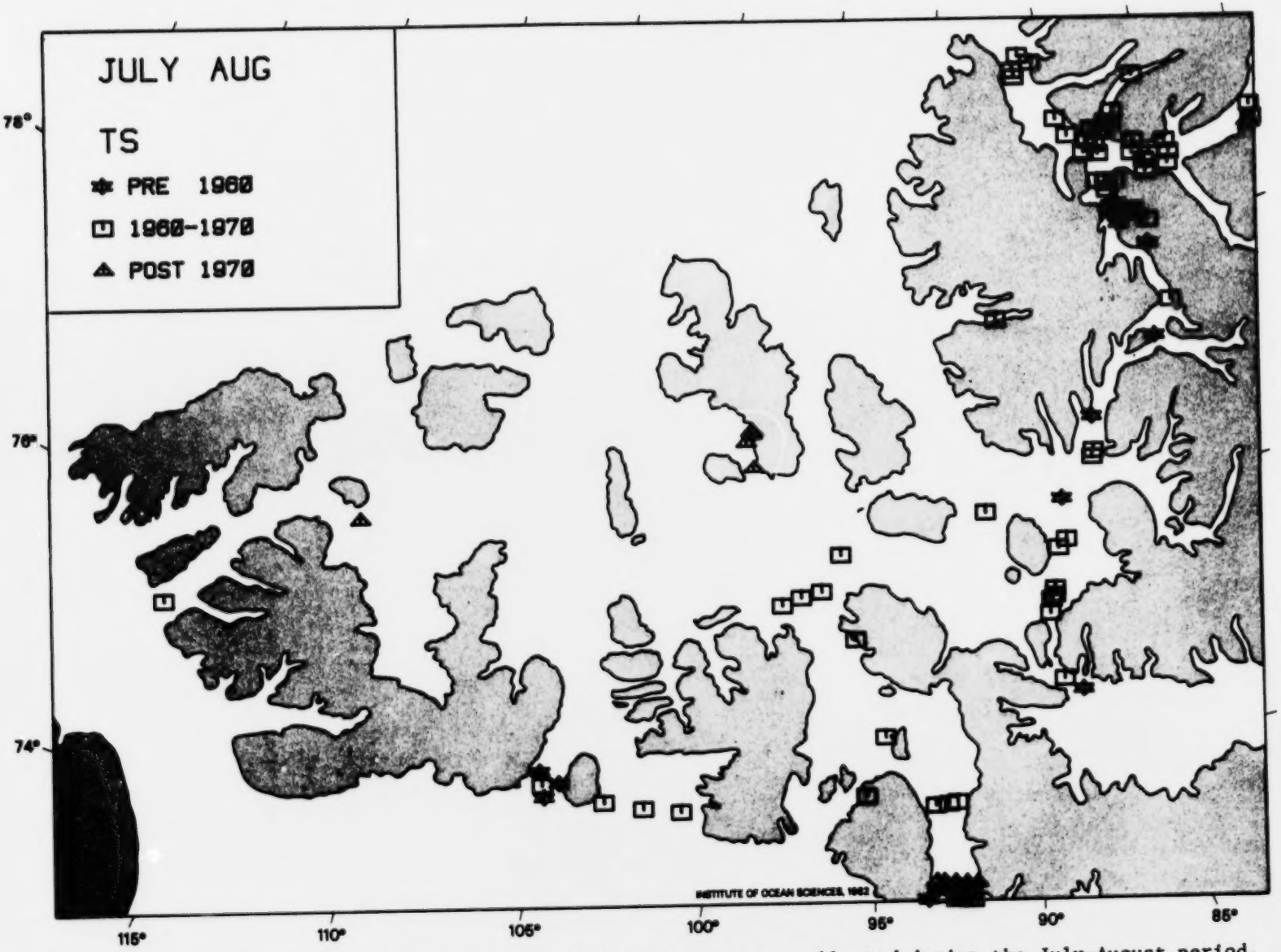


Figure 9a: The locations of temperature/salinity profile data collected during the July-August period, all years.

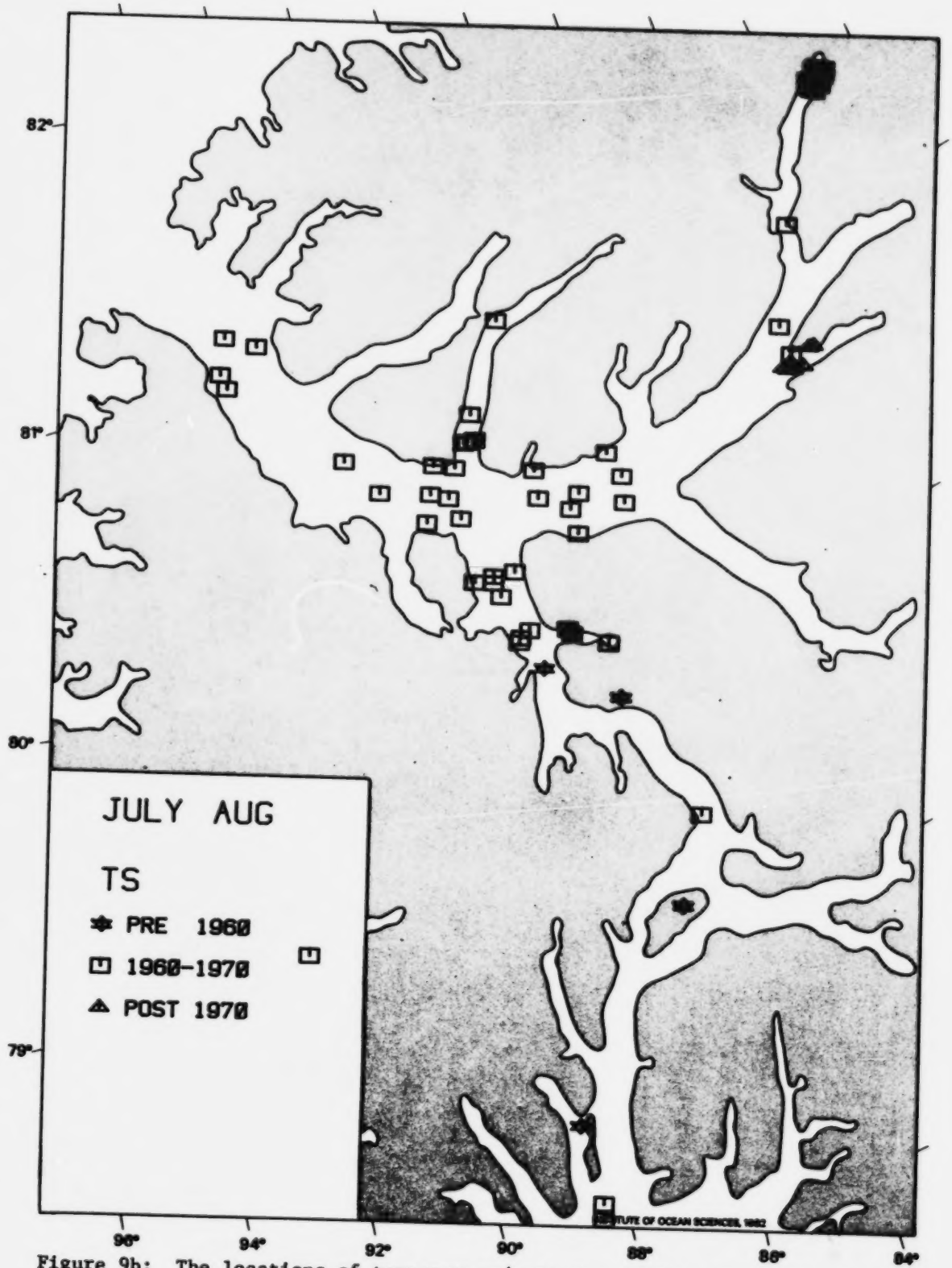


Figure 9b: The locations of temperature/salinity profile data collected during the July-August period, all years.

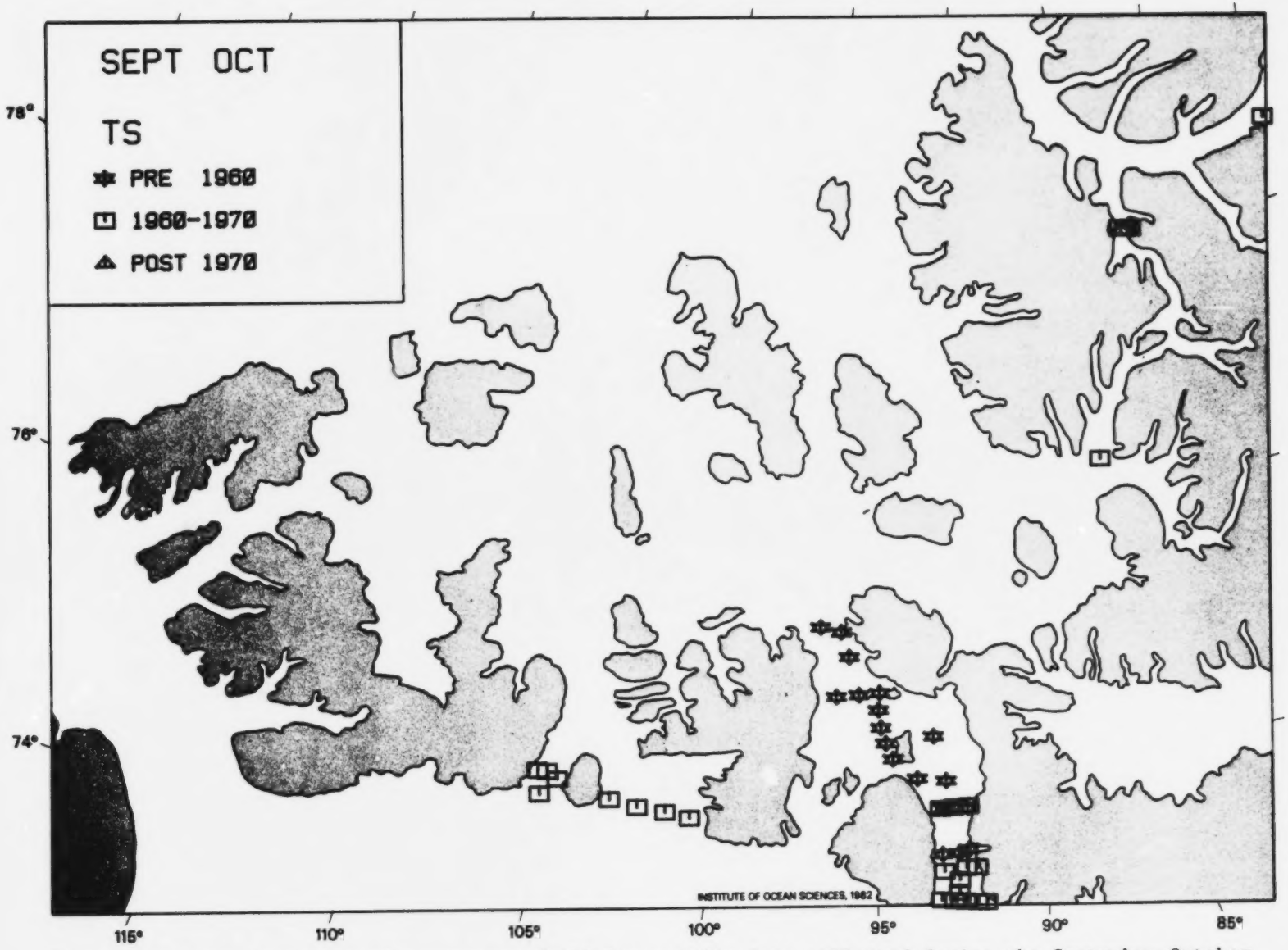


Figure 10a: The locations of temperature/salinity profile data collected during the September-October periods, all years.

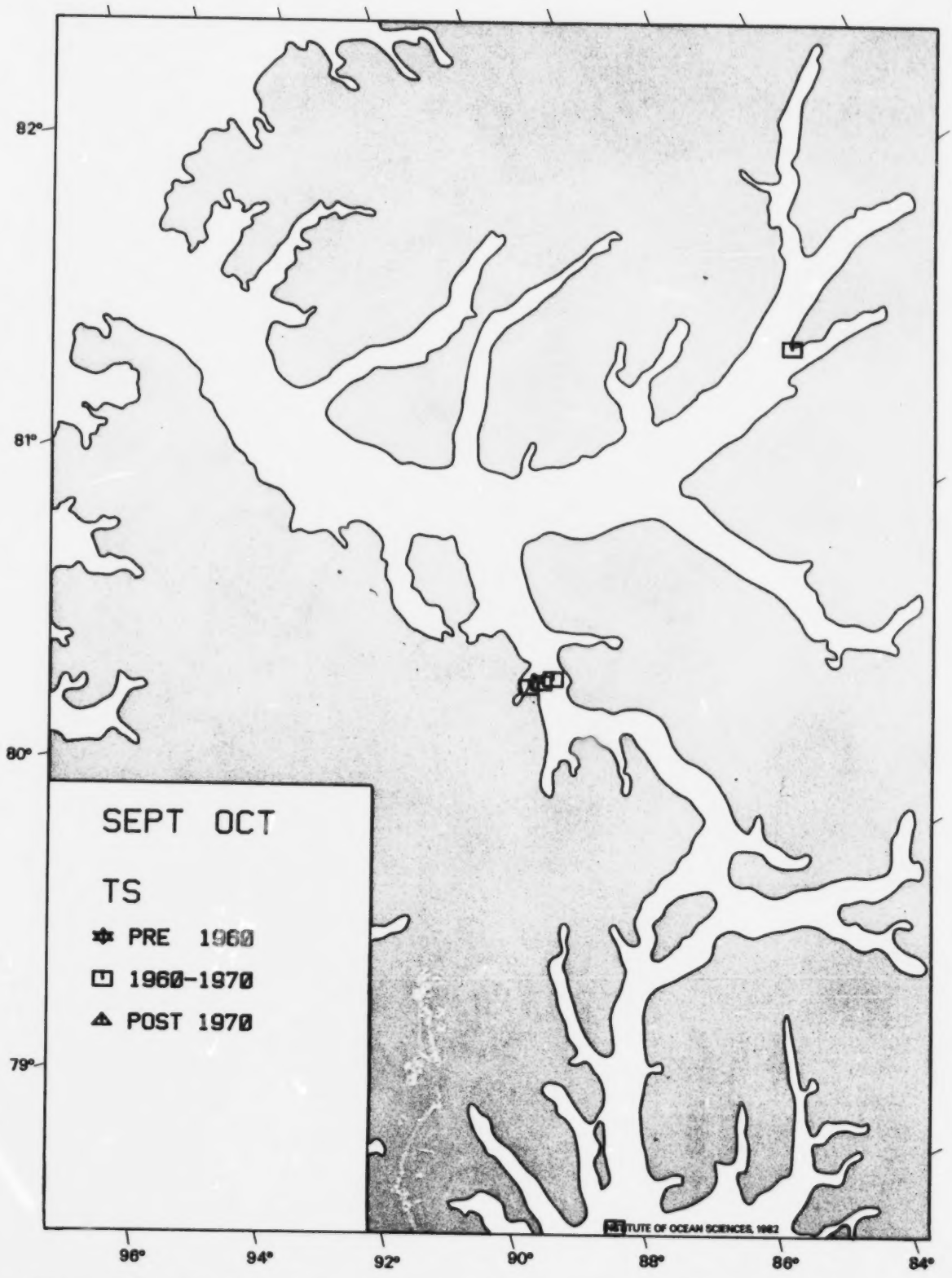


Figure 10b: The locations of temperature/salinity profile data collected during the September-October period, all years.

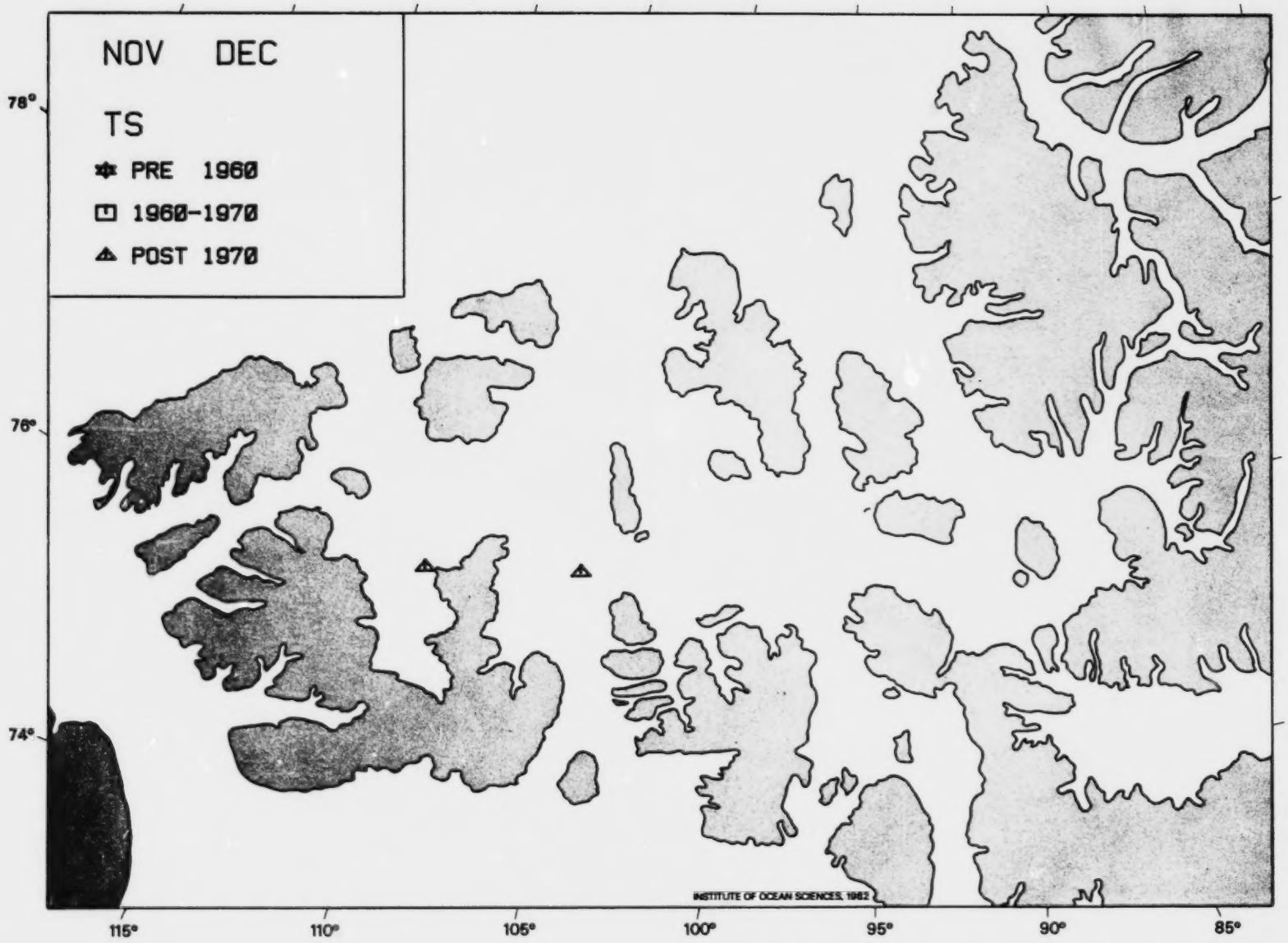


Figure 11a: The locations of temperature/salinity profile data collected during the November-December period, all years.

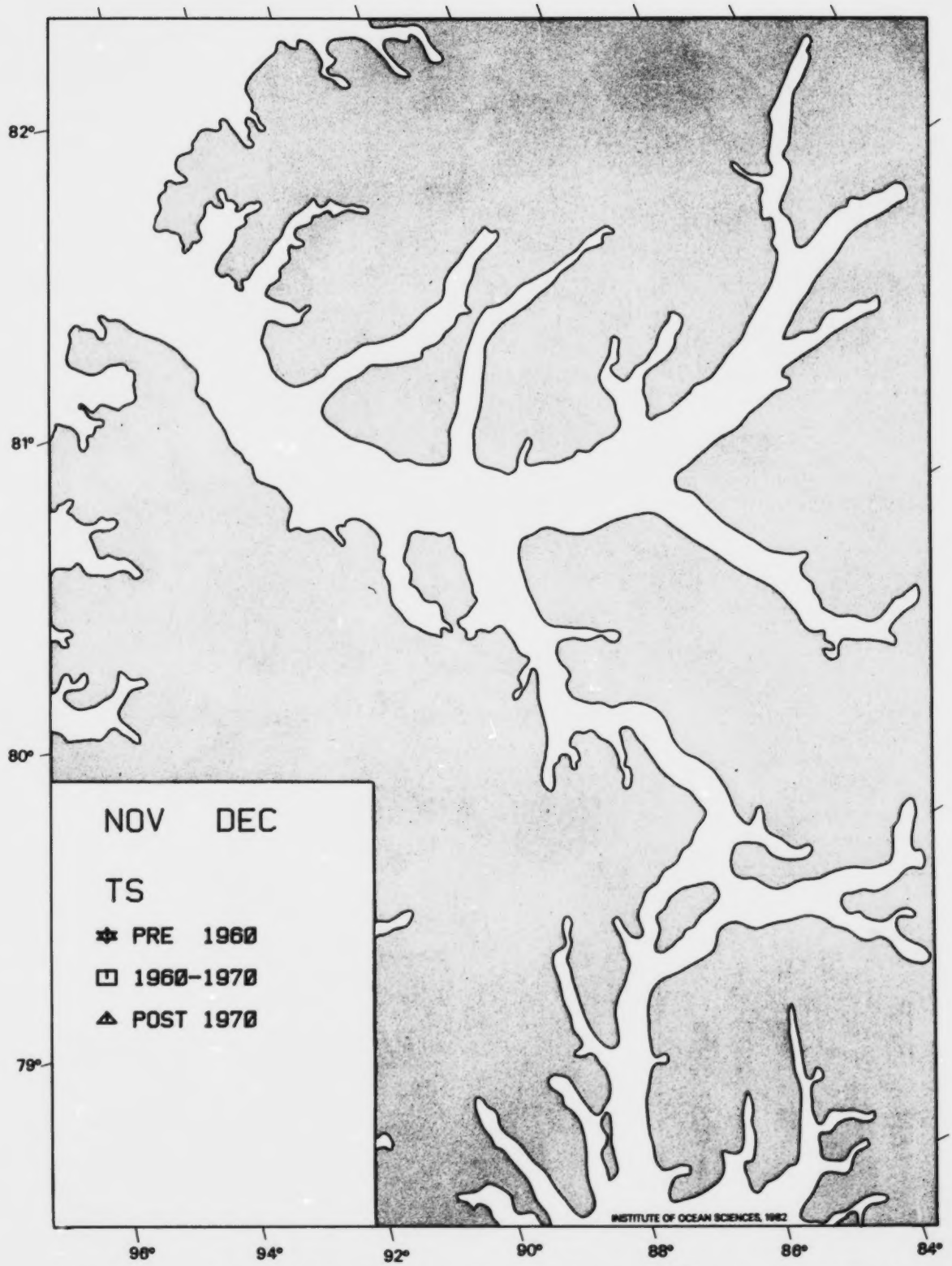


Figure 11b: The locations of temperature/salinity profile data collected during the November-December period, all years.

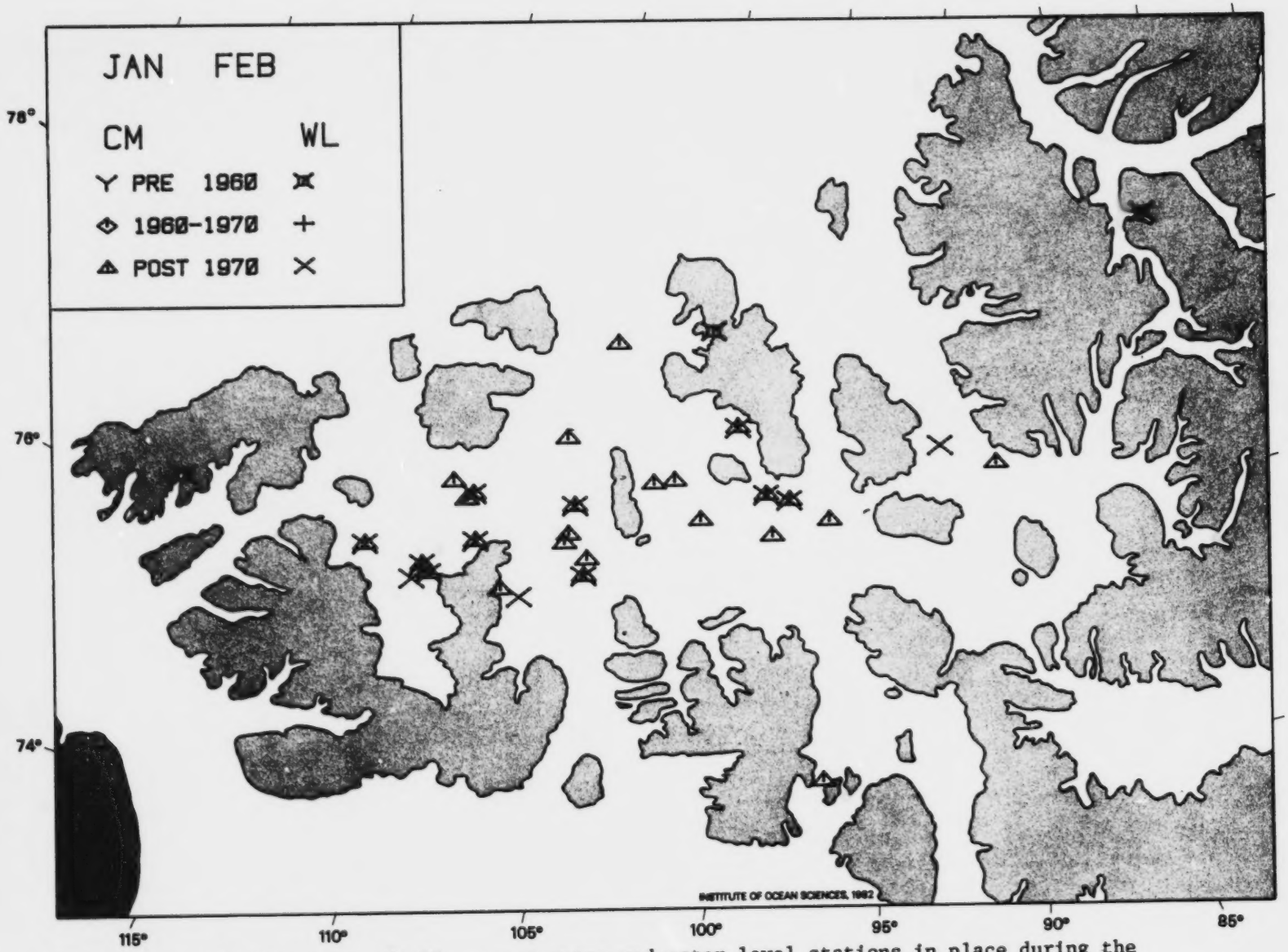


Figure 12a: The locations of all current meter and water level stations in place during the January-February period, all years.

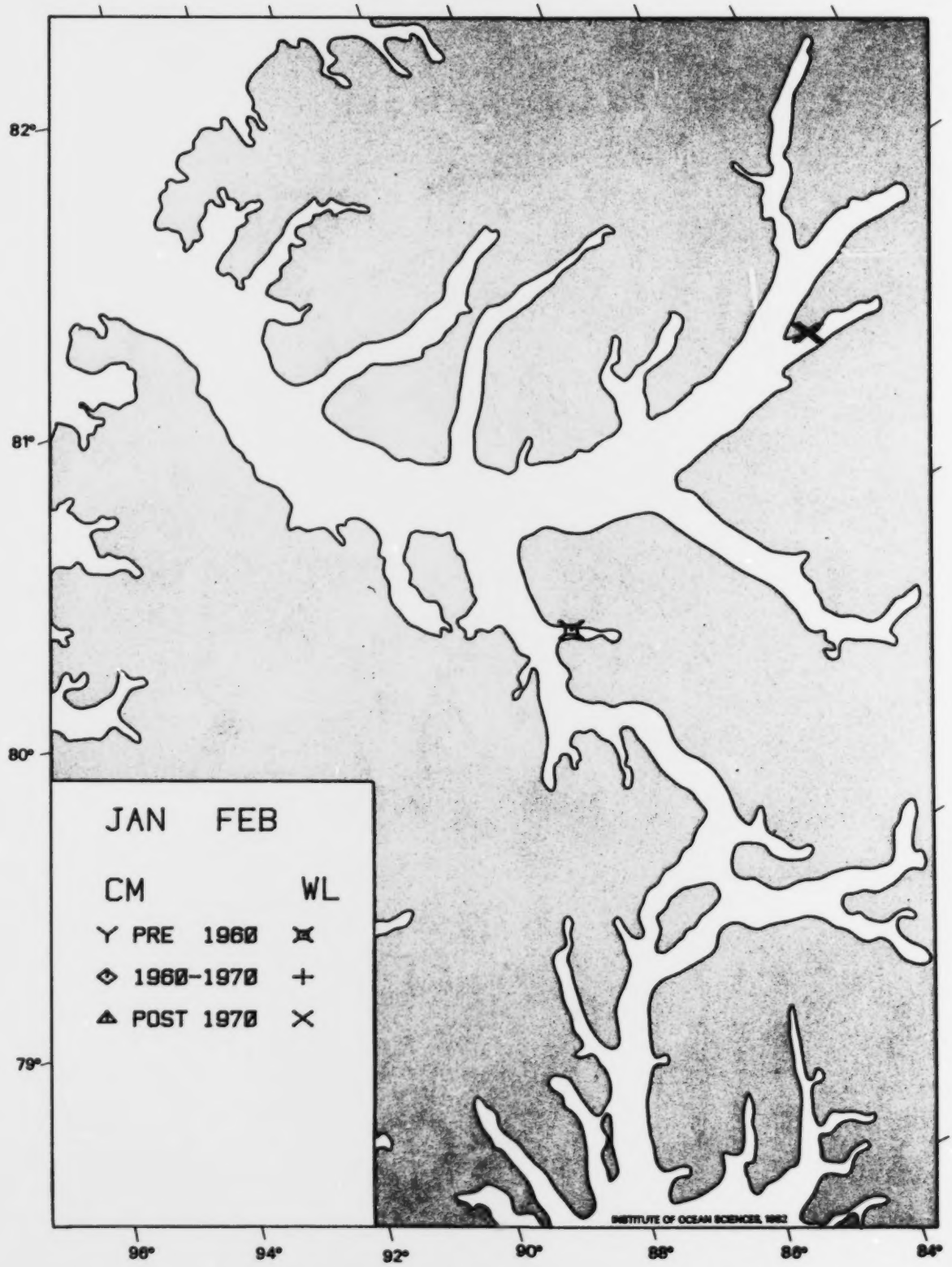


Figure 12b: The locations of all current meter and water level stations in place during the January-February period, all years.

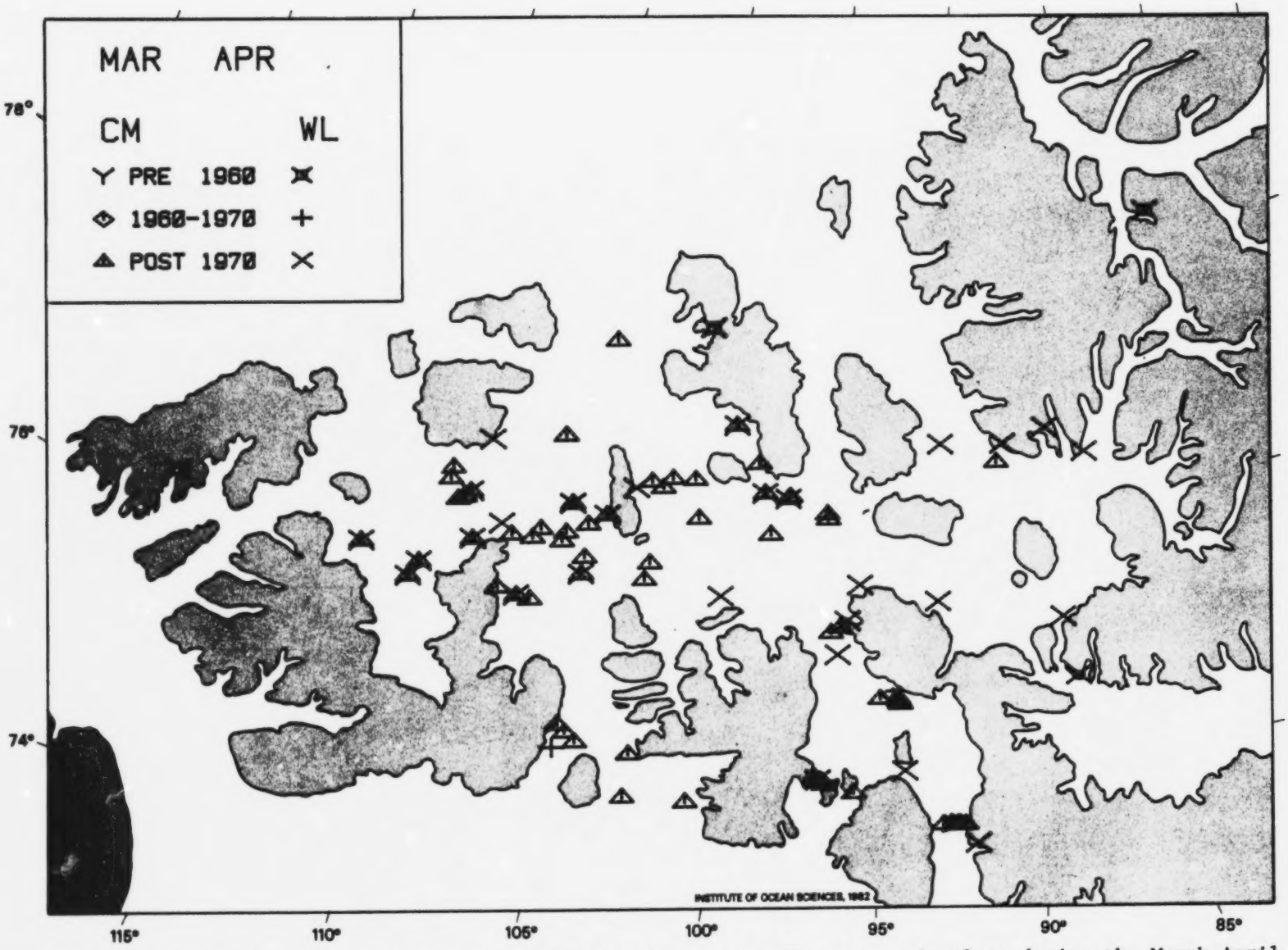


Figure 13a: The locations of all current meter and water level stations in place during the March-April, all years.

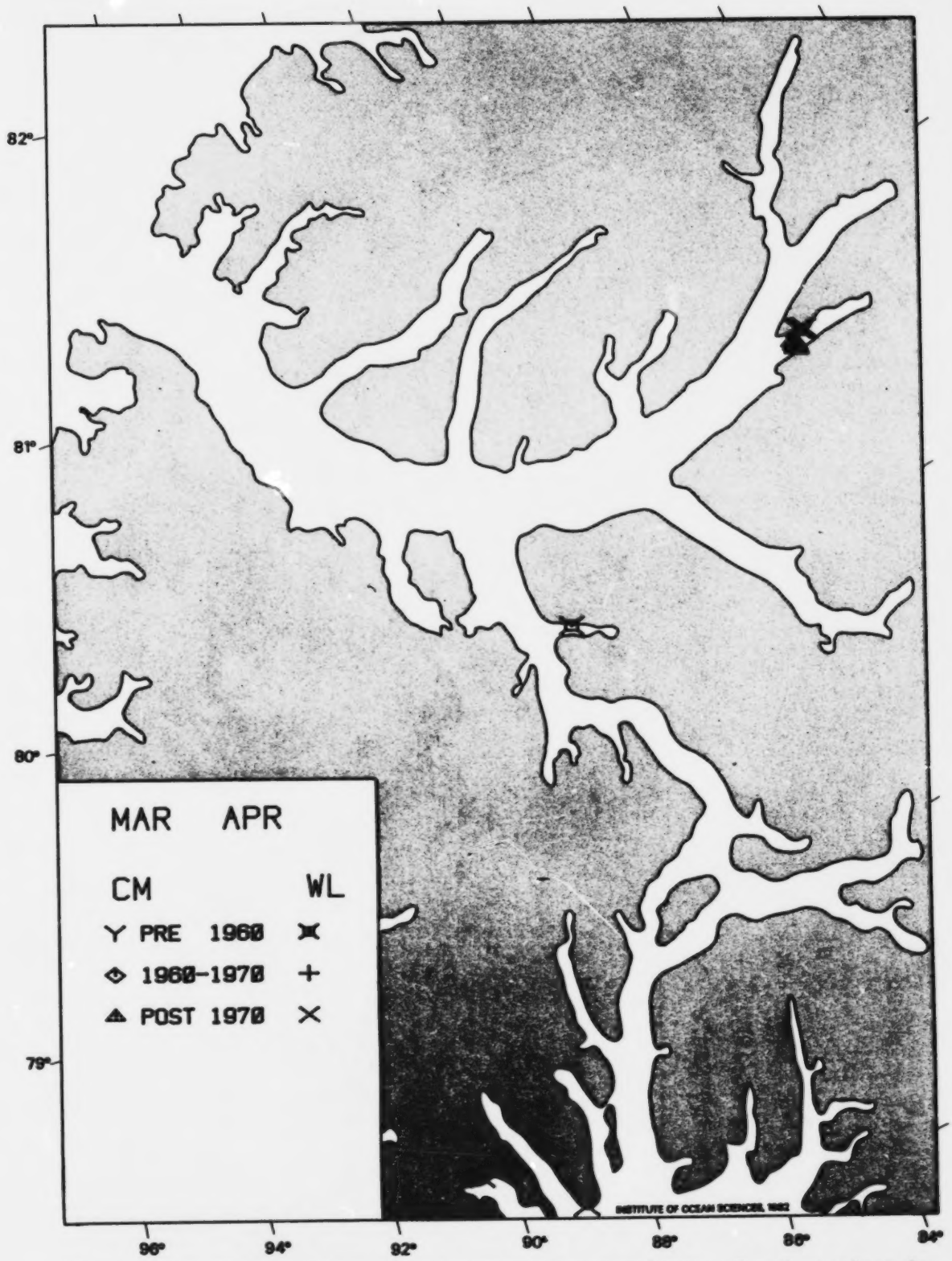


Figure 13b: The locations of all current meter and water level stations in place during the March-April period, all years.

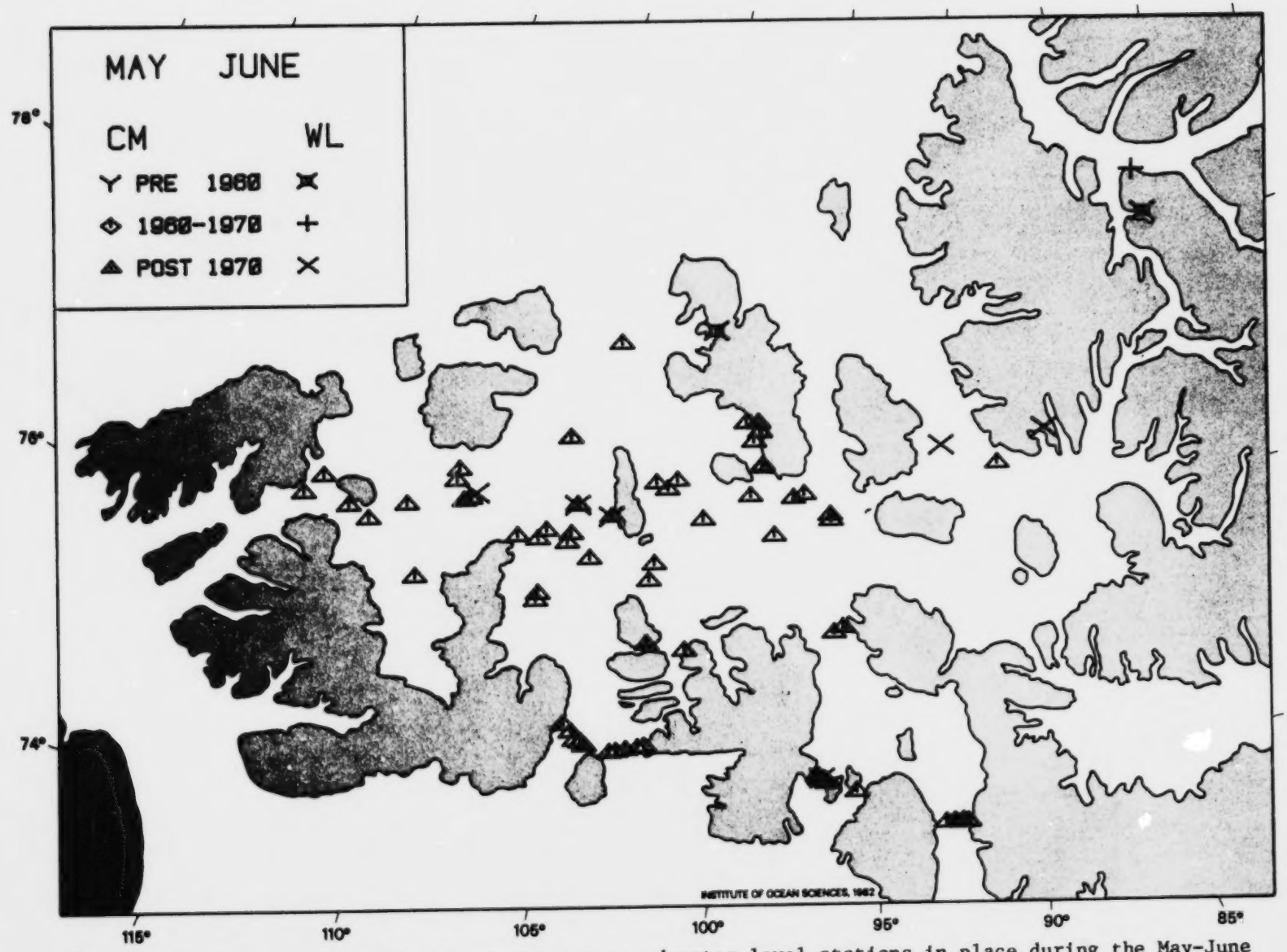


Figure 14a: The locations of all current meter and water level stations in place during the May-June period, all years.

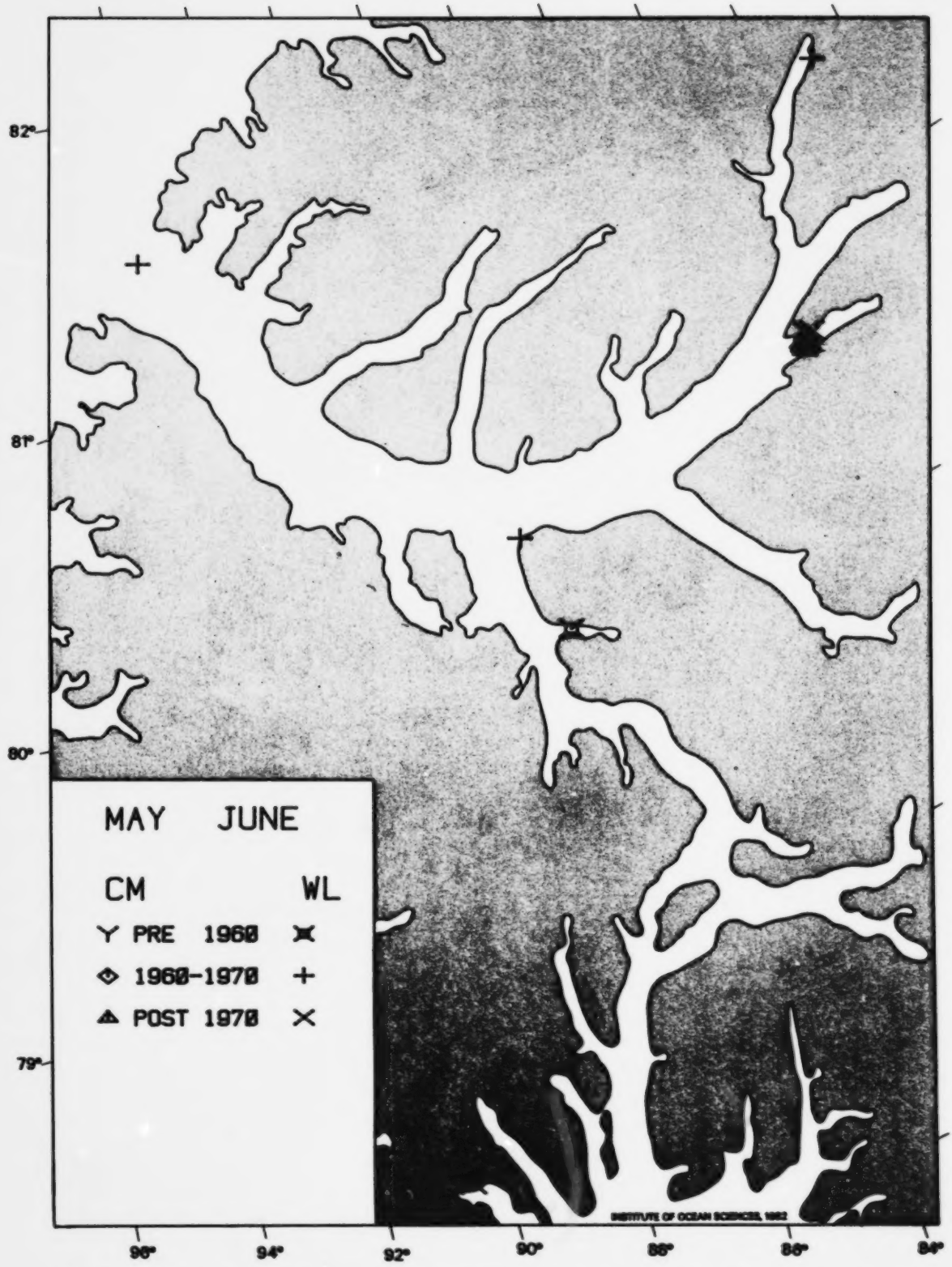


Figure 14b: The locations of all current meter and water level stations in place during the May-June period, all years.

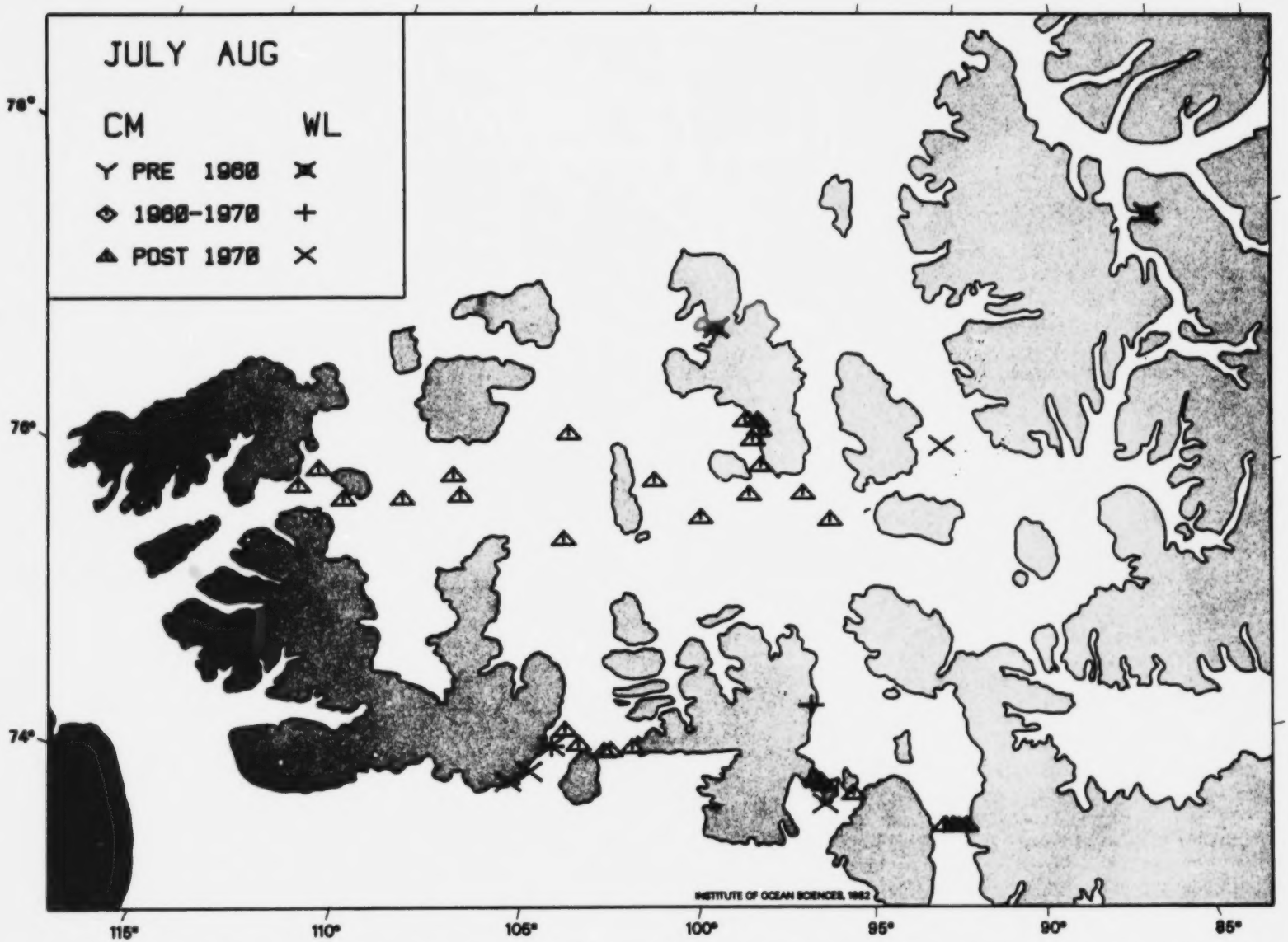


Figure 15a: The locations of all current meter and water level stations in place during the July-August period, all years.

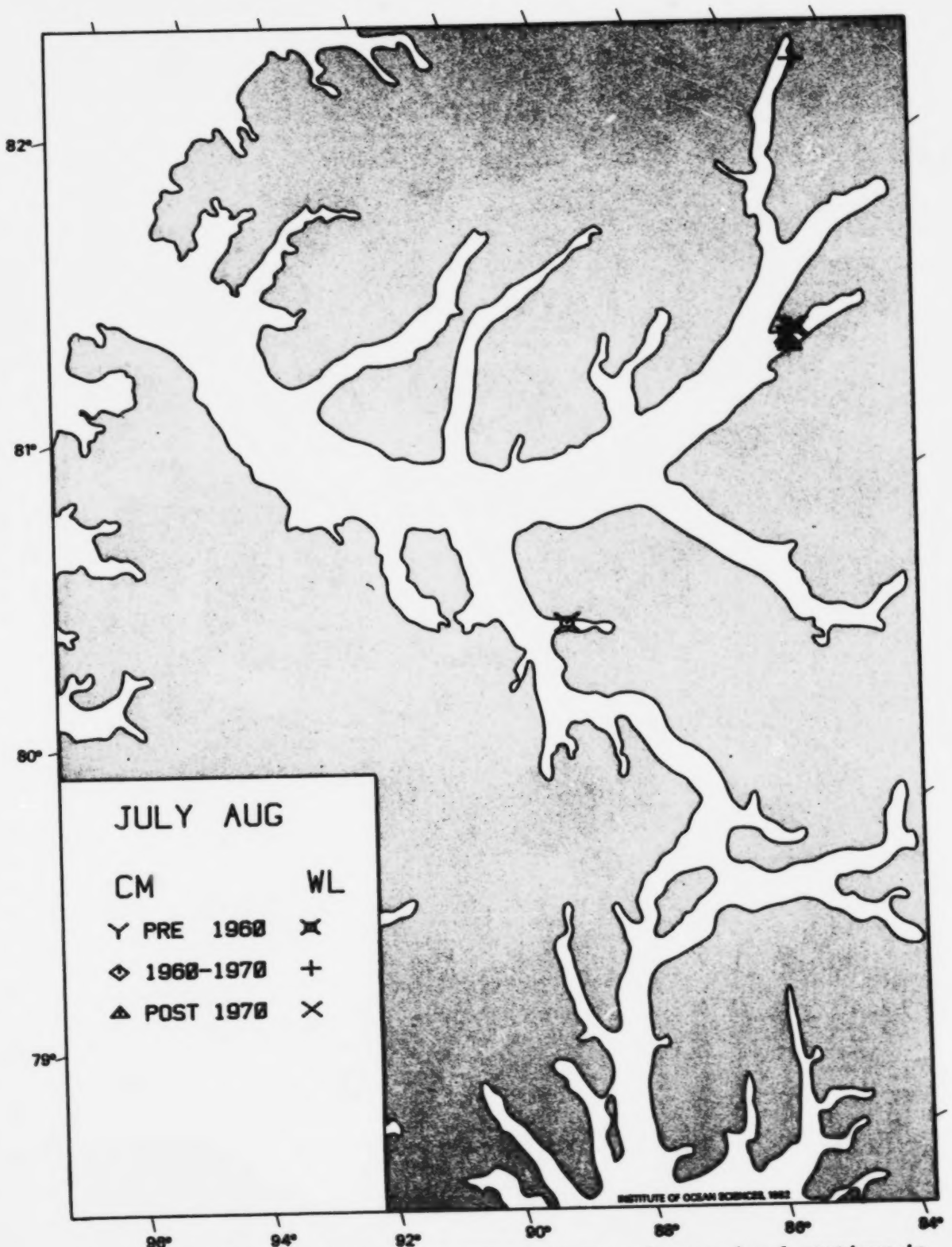


Figure 15b: The locations of all current meter and water level stations in place during the July-August period, all years.

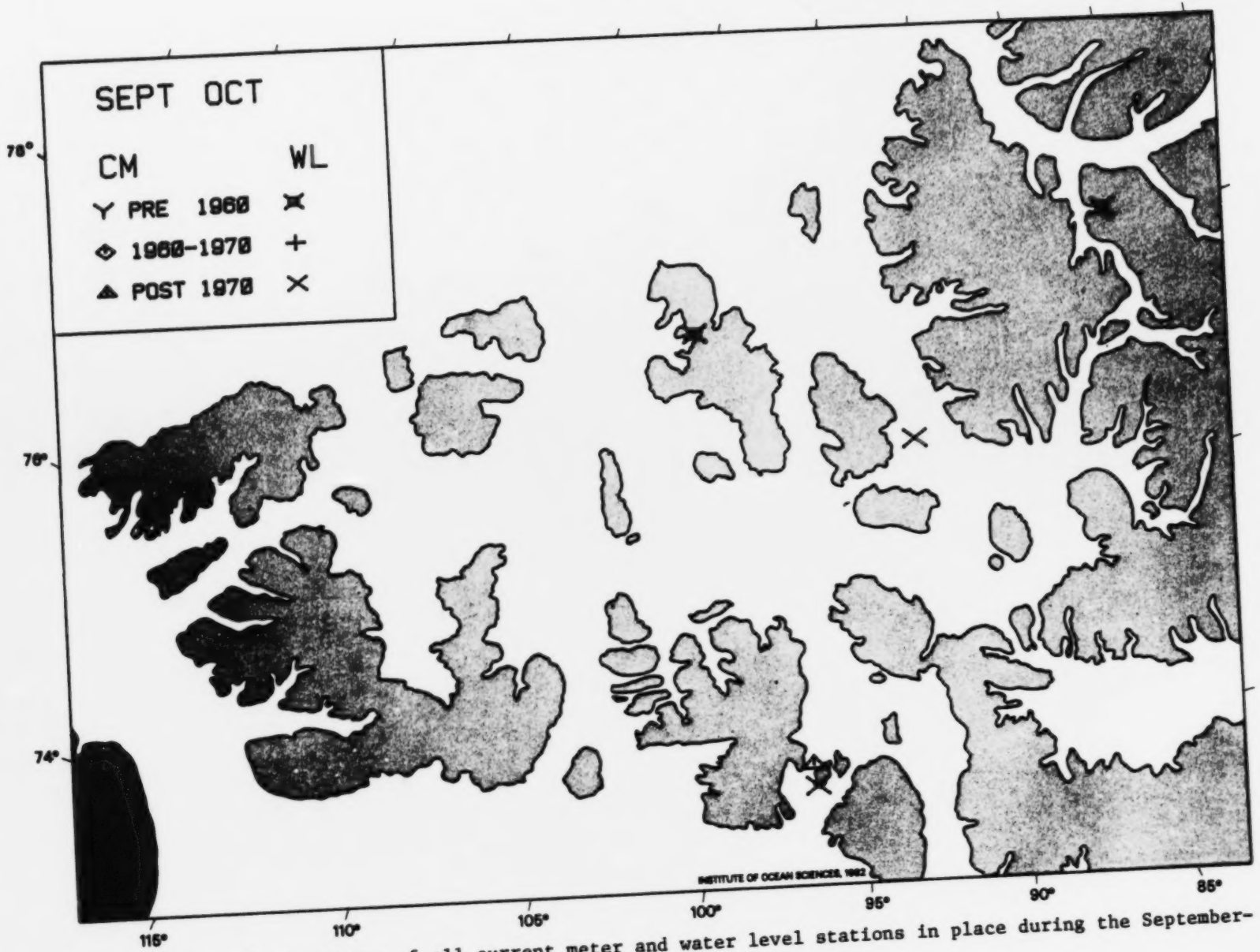


Figure 16a: The locations of all current meter and water level stations in place during the September-October period, all years.

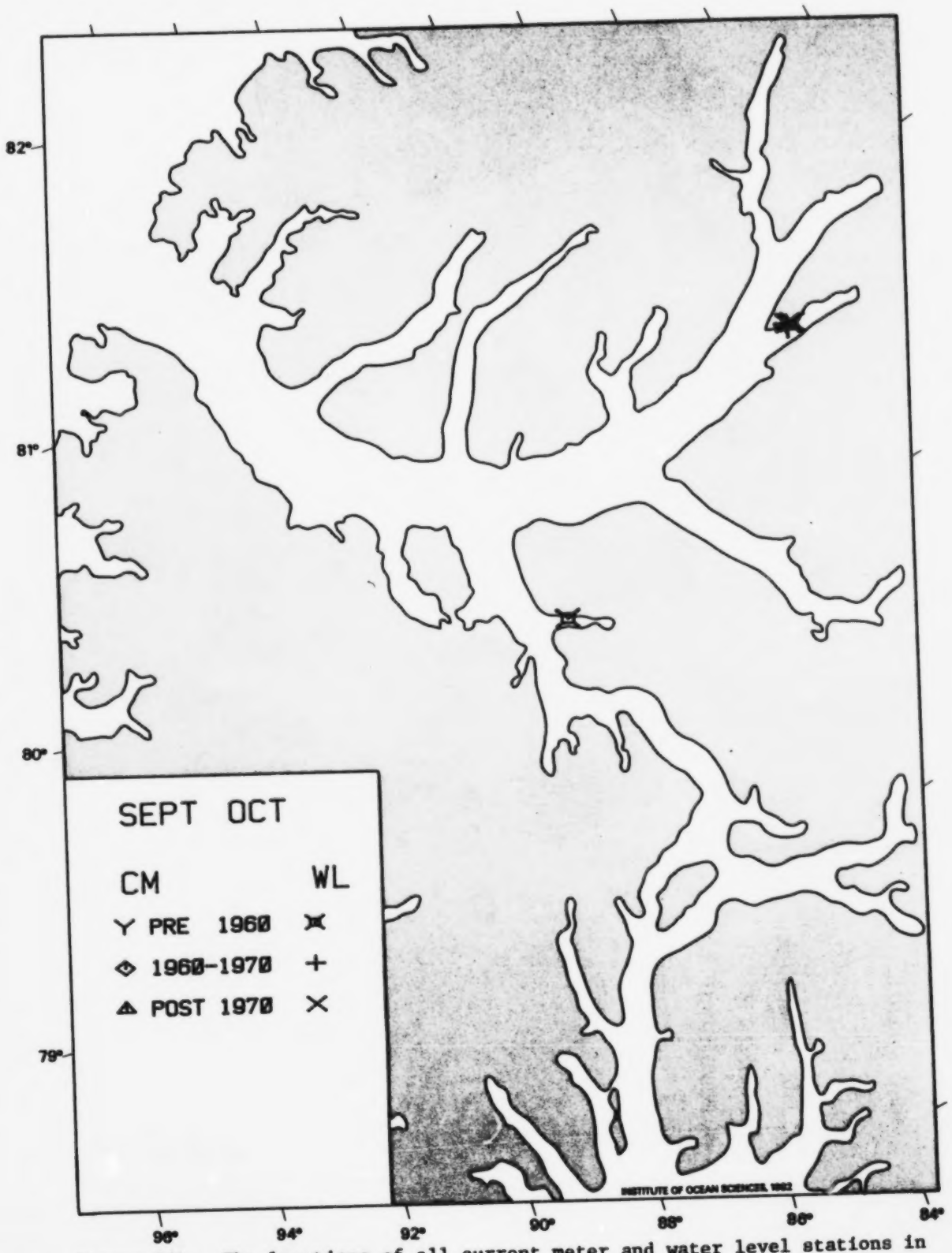


Figure 16b: The locations of all current meter and water level stations in place during the September-October period, all years.

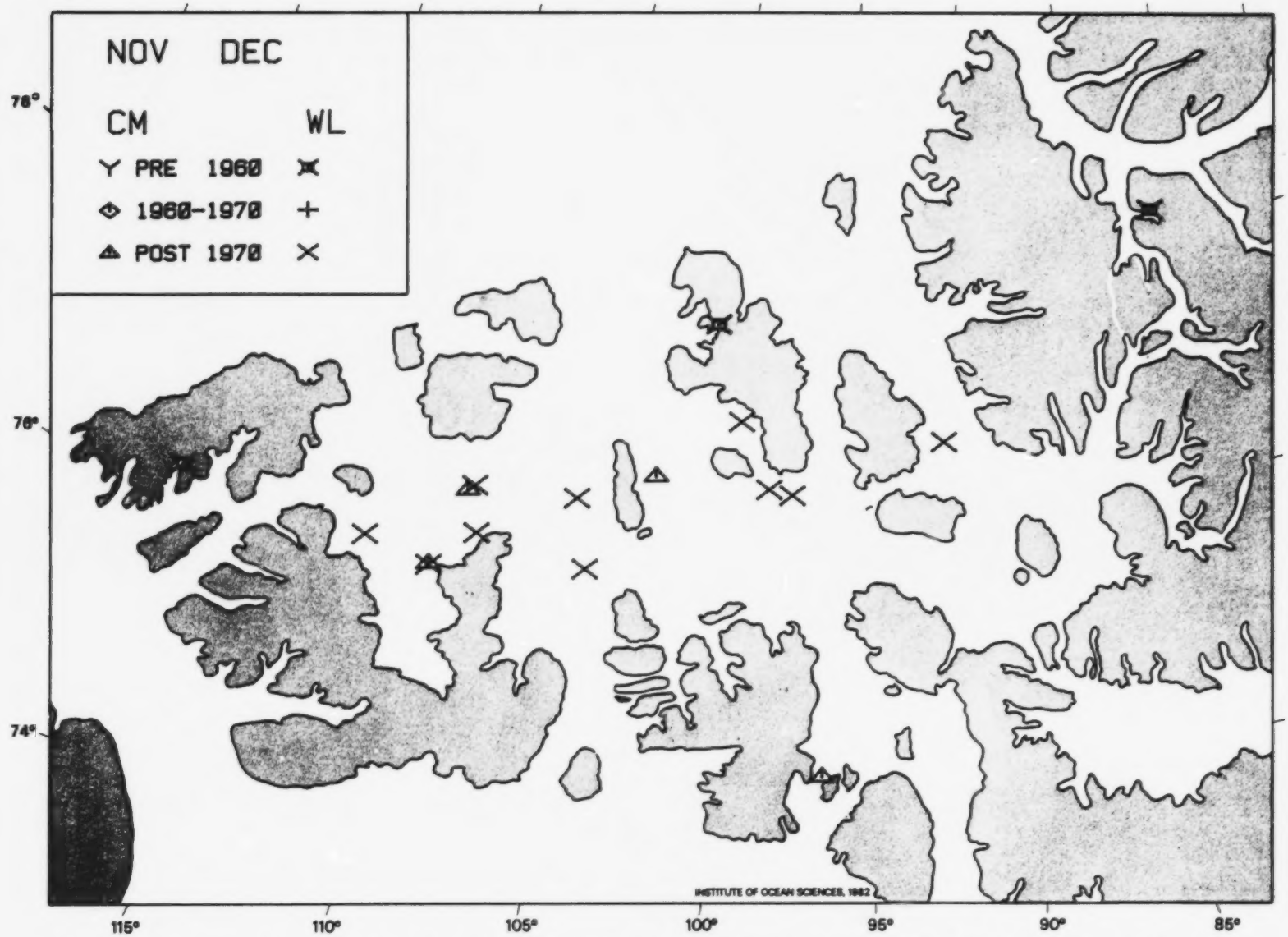


Figure 17a: The locations of all current meter and water level stations in place during the November-December period, all years.

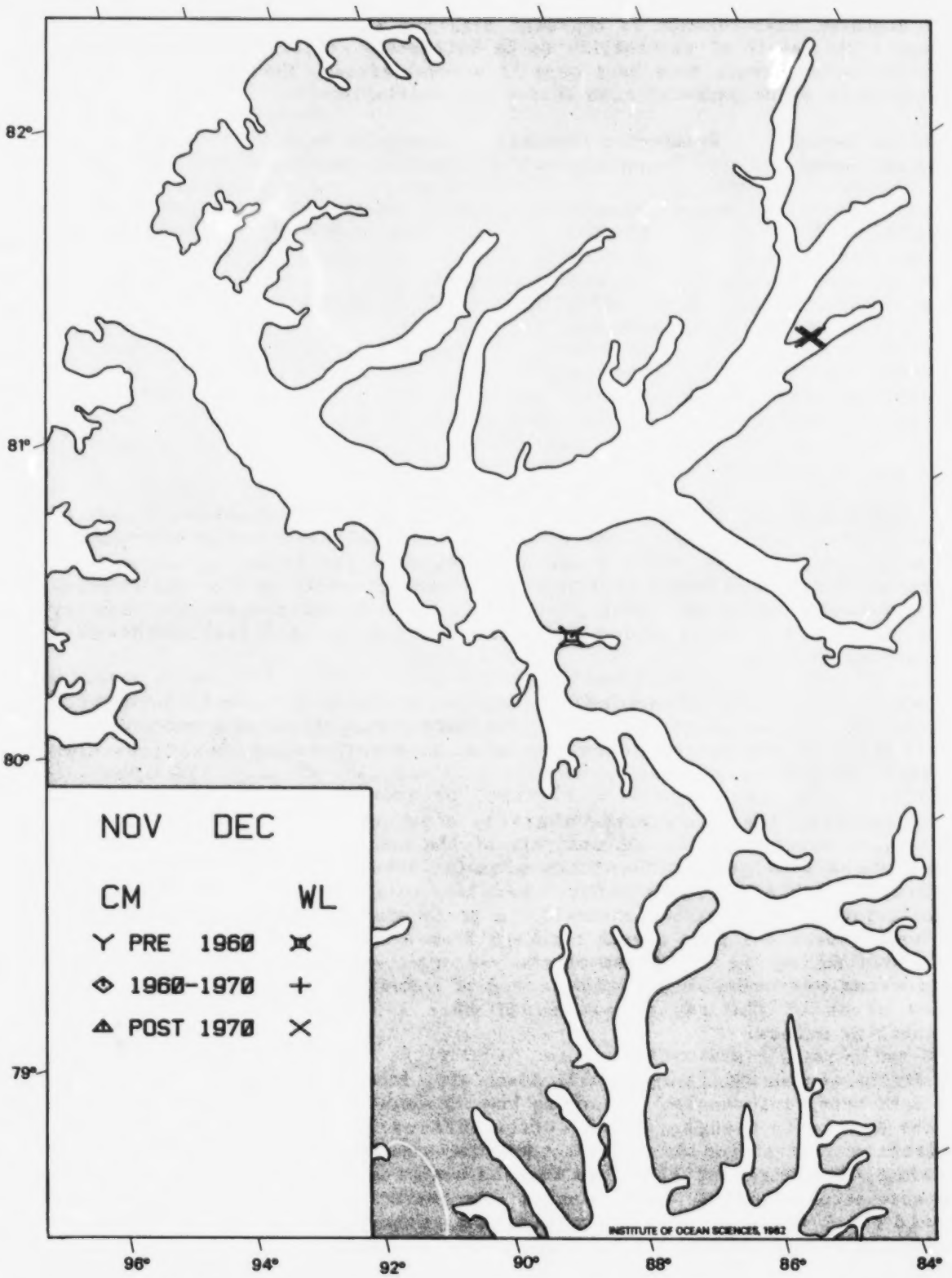


Figure 17b: The locations of all current meter and water level stations in place during the November-December period, all years.

EXTENDED TIME SERIES

Repeated measurements in the same area may allow long-term trends to be detected and levels of variability to be estimated. Repeated temperature and salinity measurements have been made in several areas. The table below lists the areas in which extended time series are available.

Nansen Sound/ Eureka Sound		Wellington Channel/ Queens Channel	Norwegian Bay/ Belcher Channel	Byam Martin Channel
48-0001	67-0005	57-0003	52-0003	54-0001
52-0003	69-0014	60-0005	61-0003	61-0003
61-0003	69-0015	61-0003	62-0006	62-0006
62-0005	70-0017	62-0006	67-0002	64-0004
62-0006	71-0015	67-0002	68-0001	76-0017
63-0010	73-0013	68-0001		78-0012
64-0008	74-0025	73-0008		
65-0005	75-0039	73-0006		
66-0010	76-0018	78-0012		
67-0002	77-0019	81-0007		

6.4 CONCLUSIONS

This catalogue of physical oceanographic data for the Queen Eizabeth Islands allows oceanographers and others to determine the coverage and quality of data pertaining to their areas of interest. The inventory at present contains 86 data sets which have been collected primarily by the oil industry and government agencies. Much of the data consists of temperature/salinity data collected largely since 1960 and current meter time series data commencing in 1974.

Most of the data collection was carried out from January to June using sea-ice as a measurement platform. For only a very limited portion of the study area, in the southeastern channels, have ship-based operations been possible in most years.

Throughout the study area, there is a pronounced lack of data in the summer and autumn months. An analysis of the one available year-long record of currents obtained in the entire area (at a near-bottom site in Crozier Strait, 1977-1978), suggests that there may be a seasonal variation in the circulation of the southern channels: a pronounced increase in the levels of the weekly averaged flow speeds occurred from October to January with weaker net flows during the remainder of the year (Greisman and Lake, 1978). Long-term meter measurements, over a period of a year or more, are required in other areas of the region to see if this same pattern of circulation variability exists.

In the course of preparing this inventory, it was noted that, for many of the data sets, information concerning key parameters was missing or uncertain in the available documentation. Often information as to the measurement, location or depth, time zone of recorded times and calibration procedures were lacking. For example, 27 of the 86 data sets received a rating of 2 due to the absence of essential documentation. Anyone interested in using these data should check directly with the collecting agency and attempt to determine collecting techniques and the quality of the data sets.

7. REFERENCES

Bailey, W.B., 1955. Oceanographic reconnaissance in the Canadian archipelago (1954). Fish. Res. Bd. Canada MSS Rept. Biol. Sta., No. 603. 145 p.

Bailey, W.B., 1957. Oceanographic features of the Canadian archipelago. J. Fish. Res. Bd. Canada, 14(5): 731-769.

Barber, F.G. and A. Huyer, 1971. On the water of the Canadian Arctic archipelago, an atlas presentation of 1961 and 1962 data. Manuscript Report Series No. 21, Marine Sciences Branch, Department of Energy, Mines and Resources, Ottawa. 76 p.

Beak Consultants Ltd., 1974. Environmental assessment and oil spill contingency plan in support of an application for drilling authority to Panarctic - Jackson Bay G-16. Report for Panarctic Oils Ltd., Calgary, Alberta (unpublished manuscript).

Beak Consulants Ltd., 1975a. Marine surveys - Jackson Bay, a pre-operational study of the environment of Jackson Bay. Report to Panarctic Oils Ltd., Calgary, Alberta (unpublished manuscript). 13 p. plus appendices.

Beak Consultants Ltd., 1975b. Biological investigations - Panarctic, Gulf et al., East Drake I-55. Report to Panarctic Oils Ltd., Calgary, Alberta (unpublished manuscript).

Beak Consultants Ltd., 1975c. Preliminary report on current measurements for Panarctic site between Emerald Isle and Melville Island. Report to Panarctic Oils Ltd., Calgary, Alberta. 13 p.

Beak Consultants Ltd., 1976a. Analysis of oceanographic data, Cape Grassy. Report to Panarctic Oils Ltd., Calgary, Alberta (unpublished manuscript). 23 p. plus unnumbered appendices.

Beak Consultants Ltd., 1976b. Analysis of oceanographic data - Warrent Point - Northeast Drake. Report to Panartic Oils Ltd., Calgary, Alberta (unpublished manuscript). 40 p. plus appendices.

Beak Consultants Ltd., 1976c. Analysis of oceanographic data for APOA project #79. Report to Panarctic Oils Ltd., Calgary, Alberta (unpublished manuscript).

Beak Consultants Ltd., 1976d. Analysis of oceanographic data - Hecla P-62. Report to Panarctic Oils Ltd., Calgary, Alberta (unpublished manuscript). 31 p. plus appendices.

Beak Consultants Ltd., 1976e. Analysis of oceanographic data - Jackson Bay G-16. Report to Panarctic Oils Ltd., Calgary, Alberta (unpublished manuscript). 25 p. plus appendices.

Beak Consultants Ltd., 1976f. Analysis of oceanographic data - Hecla M-25. Report to Beak Consultants Ltd., Calgary, Alberta (unpublished manuscript). 38 p. plus appendices.

Brooks, D.J., 1981. Arctic oceanographic survey Barrow Strait - 1981 field report. Unpubl. internal report. Ocean and Aquatic Sciences, Burlington, Ontario. 66 p.

Canadian Oceanographic Data Centre, 1963. Five Arctic Surveys. Data Record Series No. 4. Ottawa, 90 p.

Canadian Oceanographic Data Centre, 1964. Data record - eastern Arctic, 1960. 1964 Data Record Series No. 18. Ottawa. 204 p. plus illustrations.

Canadian Oceanographic Data Centre, 1966a . Arctic 1961. 1966 Data Record Series No. 12. Ottawa. 322 p.

Canadian Oceanographic Data Centre, 1966b. Arctic, Hudson Bay and Hudson Strait. Data Record Series No. 4. Ottawa. 247 p.

Canadian Oceanographic Data Centre, 1968. Hudson Bay, Hudson Strait and Arctic. Data Record Series No. 4. Ottawa. 123 p.

Canadian Oceanographic Data Centre, 1969. Operation Tanquary, Ellesmere Island, N.W.T., 1963-1966. 1969 Data Record Series No. 13. Ottawa. 152 p.

Collin, A.E., 1961. Oceanographic activities of the Polar Continental Shelf Project. J. Fish. Res. Board, Canada 18: 253-258.

Collin, A.E., 1962. On the oceanography of Lancaster Sound. Ph.D. Thesis. McGill University, Montreal. 204 p.

Fissel, D.B., 1982. Current meter measurements from the SALDAS buoys, 1977-1979: a data report. Report to Petro-Canada, Calgary, Alberta by Arctic Sciences Ltd., Sidney, B.C. (unpublished manuscript). 47 p.

Ford, W.L. and G. Hatterlsey-Smith, 1965. On the oceanography of the Nansen Sound fiord system. Arctic, 18(3): 158-171.

Frozen Sea Research Group, 1973. Oceanographic data report - d'Iberville Fiord, Ellesmere Island, N.W.T., March to April 1973. Pacific Marine Science Report 73-10. Marine Sciences Directorate, Environment Canada, Victoria, B.C. (unpublished manuscript). 123 p.

Frozen Sea Research Group, 1975. Oceaographic data report - d'Iberville Fiord, Ellesmere Island, N.W.T., March to April 1974, August 1974. Pacific Marine Science Report 75-1, Institute of Ocean Sciences, Sidney, B.C. (unpublished manuscript). 139 p.

Frozen Sea Research Group, 1976a. Oceanographic data report, d'Iberville Fiord, Ellesmere Island, N.W.T., March to April 1975. Pacific Marine Sciences Report 76-19, Institute of Ocean Sciences, Sidney, B.C. (unpublished manuscript). 166 p.

Frozen Sea Research Group, 1976b. Oceanographic data, Byam and Austin Channels, N.W.T. Institute of Ocean Sciences, Sidney, B.C. (unpublished manuscript available from Frozen Sea Research Group, Institute of Ocean Sciences).

Frozen Sea Research Group, 1976c. Oceanographic data report, d'Iberville Fiord, Greely Fiord, Eureka Sound, Ellsmere Island, N.W.T., March 1976. Pacific Marine Science Report 76-20, Institute of Ocean Sciences, Sidney, B.C. (unpublished manuscript). 201 p.

Frozen Sea Research Group, 1977. Oceanographic data, Crozier and Pullen Straits, N.W.T., March to April 1977. Pacific Marine Science Report 77-20. Institute of Ocean Sciences, Sidney, B.C.

Frozen Sea Research Group, 1978. Current velocities and some temperature and salinity values for Byam and Austin Channels, N.W.T. April 1976-March 1977. Institute of Ocean Sciences, Sidney, B.C. (unpublished report).

Frozen Sea Research Group, 1979. Oceanographic data, Crozier and Pullen Straits, N.W.T., March to April, 1979. Pacific Marine Science Report 77-20. Institute of Ocean Sciences, Sidney, B.C. (unpublished manuscript). 113 p.

Frozen Sea Research Group, 1981. Oceanographic data report, Crozier and Pullen Straits, N.W.T., Wellington Channel, N.W.T., March-April, 1978. Institute of Ocean Sciences, Sidney, B.C. (unpublished data report).

Grainger, E.H., 1963. Copepods of the genus Calanus as indicators of eastern Canadian waters. Roy. Soc. Can. Sp. Pub. No. 5, U. of Tor. Press.

Greisman, P. and R.A. Lake, 1978. Current observations in the channels of the Canadian Arctic archipelago adjacent to Bathurst Island. Pacific Marine Science Report 78-23. Institute of Ocean Sciences, Sidney, B.C. (unpublished manuscript). 127 p.

Hattersley-Smith, G., 1964. Operation Tanguary: preliminary report, 1963. Defence Research Board, Department of National Defence, Ottawa. 33 p.

Hattersley-Smith, G., 1967. Operation Tanquary: preliminary report, 1964. Defence Research Board, Department of National Defence, Ottawa. 50 p.

Hattersley-Smith, G. and H. Serson, 1964. Stratified water of a glacial lake in northern Ellesmere Island. Arctic, 10: 109-110.

Hattersley-Smith, G. and H. Serson, 1966. Reconnaissance oceanography over the ice of the Nansen Sound fiord system. Defence Research Board, Dept. of National Defence, Ottawa. 13 p. plus figures.

Herlinveaux, R.H., 1961. Data record of oceanographic observations made in pacific naval laboratory underwater sound studies, 1961. Fish. Res. Bd. Can. Manuscript Report Series No. 108. Ottawa. 85p.

Herlinveaux, R.H., 1965. Oceanographic observations during the Icepack V expedition to the Canadian Arctic, February 1964. Fish. Res. Bd. Can. Manuscript Report Series No. 198. Ottawa. 30 p.

Herlinveaux, R.H., 1970. Icepack 8/68 - oceanographic and biological observations. Fish. Res. Bd. Can., Nanaimo, B.C., Tech. Rep. No. 159. 60 p.

Herlinveaux, R.H., 1974. Surface movements in Canadian Arctic waters with some accompanying temperature and salinity observations. Pacific Marine Science Report, Environment Canada, Victoria, B.C. 13 p. plus unnumbered figures.

Herlinveaux, R.H., D.B. Fissel and S.E.G. Wilson, 1978. Oceanographic observations in Barrow Strait and Wellington Channel, N.W.T., April 1973. Institute of Ocean Sciences, Sidney, B.C. Pac. Mar. Sc. Rep. 78-4. 170 p.

Herlinveaux, R.H., D.B. Fissel and S.E.G. Wilson, (in preparation). Oceanographic observations in Barrow Strait and Wellington Channel, N.W.T., August-September, 1973. Institute of Ocean Sciences, Sidney, B.C. (in preparation).

Innovative Ventures Ltd., 1976. Data report for Panarctic Oils Ltd. (APOA 95), Calgary, Alberta, 5 volumes (unpublished manuscript).

Innovative Ventures Ltd., 1977a. Oceanographic data report for Hecla C-58, spring 1977 data. Report to Panarctic Oils Ltd., Calgary, Alberta (unpublished manuscript).

Innovative Ventures Ltd., 1977b. Summary report, ice motion, oceanographic and meteorological data (Project APOA 118). Report to Panarctic Oils Ltd., Calgary, Alberta, 4 volumes (unpublished manuscript).

Juhasz, T.A., 1980. Polar Gas Pipeline Survey: ocean current measurement program Lougheed Island to Melville Island, N.W.T. Dobrocky Seatech Ltd., Victoria, B.C. report to the Polar Gas Project. 41 p.

Lake, R.A. and E.R. Walker, 1973. Notes on the oceanography of d'Iberville Fiord. Arctic, 26(3): 222-229.

Lake, R.A. and E.R. Walker, 1976. A Canadian arctic fjord with some comparisons to fjords of the western Americas. J. Fish. Res. Bd. Can. 33: 2272-2285.

Lewis, E.L. and R.G. Perkin, 1978. Salinity: its definition and calculation. J. Geophys. Res. 83: 466-478.

Lewis, E.L. 1980. The practical salinity scale and its antecedents. IEEE Journal of Oceanic Engineering, OE-5: 3-8.

Metcalfe, W.G., 1949. Oceanographic program of the U.S. Navy Task Force 80. Arctic operation summer 1948. WHOI Ref. No. 49-4. 67 pp.

Panarctic Oils Ltd., 1978a. Cape Grassy I-34 oceanographic data report. Calgary, Alberta (unpublished manuscript).

Panarctic Oils Ltd., 1978b. Roche Point O-43 oceanographic data report. Calgary, Alberta (unpublished manuscript).

Panarctic Oils Ltd, 1979a. Hazen F-54 oceanographic data report. Calgary, Alberta (unpublished manuscript).

Panarctic Oils Ltd., 1979b. Desbarats B-73 oceanographic data report. Calgary, Alberta (unpublished manuscript). 17 p. plus appendices.

Panarctic Oils Ltd., 1979c. Whitefish H-63 oceanographic data report. Calgary, Alberta (unpublished manuscript).

Panarctic Oils Ltd., 1979d. Atmospheric and oceanographic data report, N.E. Cornwall and Edinburgh Sea stations (AIEG Ice Motion Program 1977/78). Calgary, Alberta (unpublished manuscript).

Panarctic Oils Ltd., 1980a. Whitefish H-63A oceanographic data report. Calgary, Alberta (unpublished manuscript). 17 p. plus appendices.

Panarctic Oils Ltd., 1980b. Balaena D-58, Char G-07,oceanographic data report, 1980. Calgary, Alberta (unpublished manuscript). 16 p. plus appendices.

Peck, G.S., 1977. Arctic oceanographic data report 1976 - Penny Strait. Data Report Series 77-2, Ocean and Aquatic Sciences, Canada Centre for Inland Waters, Burlington, Ontario. 38 p. plus appendices.

Peck, G.S., 1980a. Arctic oceanographic data report 1978, Volume 2. Data Report Series 80-1, Ocean and Aquatic Sciences, Central Region, Canada Centre for Inland Waters, Burlington, Ontario (unpublished manuscript). 163 p.

Peck, G.S., 1980b. Arctic oceanographic data report 1979, Sverdrup Basin, Volume 1. Data Report Series 80-2, Aquatic Sciences, Central Region, Canada Centre for Inland Waters, Burlington, Ontario (unpublished manuscript). 228 p.

Peck, G.S, 1980c. Arctic oceanographic data report 1979, Sverdrup Basin, Volume 2. Data Report Series 80-3, Ocean and Aquatic Sciences, Central Region, Canada Centre for Inland Waters, Burlington, Ontario (unpublished manuscript). 91 p.

Prinsenberg, S.J., 1978. Arctic oceanographic data report 1978, Volume I. Data Report Series 78-4, Ocean and Aquatic Sciences, Central Region, Canada Centre for Inland Waters, Burlington, Ontario (unpublished manuscript). 211 p.

Redfied, A.C. and I. Friedman, 1969. The effect of meteoric water, melt water and brine on the composition of polar sea water and of the deep waters of the ocean. Deep Sea Res. Supp. to Vol. 16: 197-214.

Serson, H.V., 1974. Sverdrup Channel. DREO Technical Note 74-10, Defence Research Establishment, Ottawa, Department of National Defence. Ottawa. 4 p plus figures and plates.

Topham, D.R., R.G. Perkin, S.D. Smith, R.J. Anderson and G. den Hartog, 1983. An investigation of a polynya in the Canadian archipelago, 1, introduction and oceanography. J. Geophys. Res. 88: 2888-2899.

U.S. Navy Hydrographic Office, 1954. Oceanographic observations, Arctic waters, USS Edisto and USS Atka. H.O. Pub. 618-A, U.S. Navy Hydrographic Office, Washington, D.C. (unpublished manuscript). 316 p.

Van Ieperen, M.P., 1981. Oceanographic summary report of current, tide, temperature and salinity data (1974-1980). Panarctic Oils Ltd. 22 p. + appendices.

8. DATA INVENTORY TABLE

Table 1 presents a summary listing of the data sets included in this inventory. The table lists all the data contained in the inventory sequentially by data set number. Water property, moored current meter, surface drift and water level data are fully catalogued. BT data, because of their limited usefulness in Arctic waters without accompanying salinity data, have not been catalogued in detail. However their existence has been noted in Table 1, and their general distribution may be deduced from the pattern of stations for a particular cruise, as they were usually collected at and along the track between stations. Over-the-side current measurements of short duration made with fixed-depth or profiling current meters have not been fully inventoried. Attempts were made to include all such data covering a tidal cycle or more.

Each column of the table contains the following information (symbols and abbreviations used in each column are explained as well):

Column 1 - Data Set I.D.

- contains the data set identifier number, which is of the form yy-nnnn, where yy is the last two digits of the year in which the data set was collected, and nnnn is the sequential number of the data set for that particular year. (The series of data set numbers applies to the whole set of inventories; gaps may appear in the sequence in any one inventory where data sets exist only in other areas or disciplines. A data set which appears in two or more areas or disciplines will have the same number in every case.) Data sets may be sub-divided by the addition of a letter at the end of the number. Sub-divisions apply only within this report and are used to separate specific types of physical oceanographic data within a single cruise or study.

Column 2 - Ship or collecting agency

- contains the name of the ship (underlined), platform and/or agency.

Column 3 - Dates of measurements

- gives the dates spanning the period during which measurements were taken in the area covered by the inventory. The year is given by the first two digits of the data set number in column 1, unless the measurement period spans the end of a year, in which case it is given explicitly. Question marks mean the dates could not be confirmed, generally due to poor/lack of documentation.

Column 4 - Quantity measured

- lists the physical parameters measured in the data set. A quantity followed by a ? means that reference to such a measurement was made but no supporting details. Measurements identified as "Currents" are Eulerian, fixed current measurements; "Current drift" refers to Lagrangian measurements. Current profiles are spot measurements at certain depths.

Column 5 - Instruments or methods used

- lists the instruments and methods used to make the measurements. The entries appear opposite the names (in column 3) of the quantities they measure. A question mark after the entry denotes an assumption, i.e. that the method used was not explicitly stated and an assumption was made from standard practice at the time. A question mark alone means that the instrument used is unknown.

Column 6 - Estimate of data precision and accuracy

- lists the estimates of the precision (repeatability) and accuracy for each instrument opposite the entry for that instrument in column 5. For instruments of a digital nature, the precision specified is based on the resolution of the instrument. Where possible, estimates made by the original investigators are used. They are entered as two numbers of the form $\pm n_1$, $\pm n_2$ where n_1 is the precision and n_2 the accuracy. Where investigator's estimates were not available, the following special symbols and entries have been used:

  $[\pm n_1, \pm n_2]$: standard oceanographic methods were used, which would normally result in these values. The techniques and precision/accuracy used in this context are:

BT	[0.2C°,0.2C°]
Reversing thermometer	[0.02C°,0.03C°]
Salinity - Hydrometer	[0.2°/oo,0.2°/oo]
Salinity - Refractometer	[0.5°/oo,0.5°/oo]
Salinity - Titration	[0.02°/oo,0.04°/oo]
Salinity - Bench salinometer	[0.01°/oo,0.02°/oo]

  $\pm n_1$ @: manufacturer's specifications for that instrument.

  $\pm n_1$?: an estimate has been given which is questionable for reasons detailed in Appendix 1.

  The column is blank where no information was available and no reasonable assumption could be made.

Column 7 - Data rating number

- carries the data rating number assigned as explained in Section 5.

Column 8 - Area

- lists the sub-areas in which the majority of the measurements in the data set were taken. (The sub-areas are defined in Figure 1.)

Column 9 - Concurrent measurements

- lists known measurements in other disciplines taken as part of the data set. Other measurements may have been taken which were not discovered while cataloguing the physical oceanographic data.

Column 10 - Source or reference

- lists a primary source or reference for the data sets. Data sets held in the data banks at the Marine Environmental Data Centre, Ottawa or at the National Oceanographic Data Center, Washington D.C. are identified, respectively by the entries MEDS# and NODC# followed by the data bank's identity number. A MEDS number alone does not necessarily mean that the data are not stored at NODC. If MEDS does not have the data then a NODC number is given if stored there. Appendix 2 lists addresses and contacts for these sources.

TABLE 1: SUMMARY LISTING OF DATA SETS

Data Set I.D.	Ship or collecting agency	Dates of measurements	Quantity measured	Instruments or methods used ?=Unknown	Estimate of Data precision and accuracy	Data rating number	Area	Concurrent measurements	Source or reference
48-0001	USCGC EASTWIND WOODS HOLE OCEAN. INST. FOR U.S. NAVY HYDRO. OFF.	Aug. 29	Temperature Salinity	Reversing thermometers BT Knudsen titration	[.02C°,.03C°] [.2C°,.2C°] [.02°/oo,.04°/oo]	3	Eureka Sound		NODC# 31EW50376 Metcalfe (1949)
49-0001	CANADIAN HYDROGRAPHIC SERVICE	Aug.1,1949-Aug.31,1951	Water levels	?	?	2	(Isachsen) Prince Gustaf Adolf Sea		MEDS WL-ID 06910
51-0007	CANADIAN HYDROGRAPHIC SERVICE	July 1,1951-Aug.31,1952	Water levels	?	?	2	(Mould Bay) Crozier Channel		MEDS WL-ID 06955
52-0003	USS EDISTO	Aug.17-19	Temperature Salinity	Reversing thermometers BT Knudsen titration?	[.02C°,.03C°] [.2C°,.2C°] [.02°/oo,.04°/oo]	3	Norwegian Bay, Eureka Sound	O_2, water transparency, vertical plankton tows	MEDS# 180052040 USNHO (1954) Pub. 618-A NODC# 31ED50368
54-0001	HMCS LABRADOR	Aug. 18-25	Temperature Salinity	Reversing thermometers BT Knudsen titration	[.02C°,.03C°] [.2C°,.2C°] [.02°/oo,.04°/oo]	3	Wellington Channel, Byam Channel	O_2, plankton hauls, bottom samples, phosphates	MEDS# 180354189, MEDS# 180054040 Bailey (1955) Bailey (1957)
54-0010	CANADIAN HYDROGRAPHIC SERVICE	July 1,1954-Aug. 31,1958	Water levels	?	?	2	Eureka Sound, (Isachsen) Prince Gustaf Adolf Sea		MEDS# WL-ID 06640, 06910
57-0003	CCGS LABRADOR MCGILL UNIV., MONTREAL	Aug. 28-Sept. 17	Temperature Salinity	Reversing thermometers Knudsen titration?	[.02C°,.03C°] [.02°/oo,.04°/oo]	3	Wellington Channel, Queens Channel, Penny Strait	O_2, phosphates	MEDS# 180357244 MEDS# 180057040 Collin (1962)
59-0004	CANADIAN HYDROGRAPHIC SERVICE	Mar. 1-Apr. 30	Water levels	?	?	2	(Isachsen) Prince Gustaf Adolf Sea		MEDS WL-ID 06910
60-0005	CCGS LABRADOR	Aug. 30	Temperature Salinity	Reversing thermometers BT Knudsen titration	[.02C°,.03C°] [.2C°,.2C°] [.02°/oo,.04°/oo]	3	Wellington Channel	Plankton	MEDS# 181060340 MEDS# 180060001 CODC (1964) No. 18

TABLE 1: SUMMARY LISTING OF DATA SETS (Cont'd)

Data Set I.D.	Ship or collecting agency	Dates of measurements	Quantity measured	Instruments or methods used ?=Unknown	Estimate of Data precision and accuracy	Data rating number	Area	Concurrent measurements	Source of reference
60-0007	AIRCRAFT POLAR SHELF PROJECT	Apr. 18-May 31	Temperature	Reversing thermometers	[.02C°,.03C°]	3	Sverdrup Channel, Peary Channel, Prince Gustaf Adolf Sea	O_2, plankton hauls, sediment cores	MEDS# 181160338 MEDS# 180060040 Collin (1961)
				BT	[.2C°,.2C°]				
			Salinity	Knudsen titration?	[.02°/oo,.04°/oo]				
61-0003	CCGS SIR JOHN A. MACDONALD	Aug. 24-Sept. 9	Temperature	Reversing thermometers	[.02C°,.03C°]	3	Wellington Channel, Byam Channel, Austin Channel, Norwegian Bay, Queens Channel		MEDS# 180761344 MEDS# 180061003 MEDS# 180061072 CODC (1966) Barber and Huyer (1971)
				BT	[.2C°,.2C°]				
			Salinity	Salinometer	[.02°/oo,.04°/oo]				
61-0004	CCGS LABRADOR	Sept. 7	Temperature	Reversing thermometers	[.02C°,.03C°]	3	Wellington Channel	O_2, plankton tows	MEDS# 181061341 MEDS# 180061001 MEDS# 180061072 CODC (1966)
				BT	[.2C°,.2C°]				
			Salinity	Salinometer	[.02°/oo,.04°/oo]				
61-0005	AIRCRAFT, POLAR SHELF PROJECT	May 8	Temperature	Reversing thermometers	[.02C°,.03C°]	2	Eureka Sound		MEDS# 180161339
			Salinity	Salinometer?	[.01°/oo,.02°/oo]				
61-0009	ICE CAMP, PACIFIC OCEANOGRAPHIC GROUP	Apr. 13-May 3	Temperature	Reversing thermometers	.01C°, [.03C°]	3	Prince Gustaf Adolf Sea	O_2, vertical plankton hauls, acoustics	MEDS# 180961763 Herlinveaux (1961)
				BT	[.2C°,.2C°]				
			Salinity	Salinometer	[.01°/oo,.02°/oo]				
			Current meter	E-M Induction	?				
62-0005A	LAND BASED ARCTIC UNIT, MONTREAL	July 17	Temperature	Reversing thermometers	[.02C°,.03°]	3	Penny Strait	Plankton, fish, mammals, chemicals	MEDS# 180462363 MEDS# 180062004
				BT	[.2C°,.2C°]				
			Salinity	Salinometer?	[.01°/oo,.02°/oo]				
62-0005B	LAND-BASED ARCTIC UNIT, MONTREAL	July 2-Aug. 16	Temperature	Reversing thermometers	[.02C°,.03C°	3	(Slidre Fiord) Nansen Sound, (Strand Fiord) Massey Sound	Plankton, fish, mammals, chemicals	MEDS# 180462364 MEDS# 180062004 CODC (1963)
				BT	[.2C°,.02C°]				
			Salinity	Salinometer?	[.01°/oo,.02°/oo]				
62-0006	CCGS SIR JOHN A. MACDONALD	Aug. 7-31	Temperature	Reversing thermometers	.02C°, [.03C°]	3	Wellington Channel, Norwegian Bay, Penny Strait, Austin Channel	O_2, vertical plankton hauls	MEDS# 181062359 MEDS# 180062086 Barber and Huyer (1971) CODC (1966b)
				BT	[.2C°,.2C°]				
			Salinity	Salinometer	.004°/oo, [.02°/oo]				

TABLE 1: SUMMARY LISTING OF DATA SETS (Cont'd)

Data Set I.D.	Ship or collecting agency	Dates of measurements	Quantity measured	Instruments or methods used ?=Unknown	Estimate of Data precision and accuracy	Data rating number	Area	Concurrent measurements	Source or reference
62-0013	CANADIAN HYDROGRAPHIC SERVICE	July 1-31	Water levels	?	?	2	Queens Channel		MEDS WL-ID 06765
63-0010	MOTOR TOBOGGAN, FREIGHT CANOE, DEFENCE RESEARCH ESTABLISHMENT OTTAWA	May 26-Aug. 18	Temperature	Reversing thermometers BT	[.02C°,.03C°] [.2C°,.2C°]	3	Nansen Sound	Botany, glaciology	MEDS# 180763001 CODC (1969) Ford and Hattersley-Smith (1965) Hattersley-Smith (1964)
			Salinity	Salinometer?	[.01°/oo,.02°/oo]				
			Water levels	Staff	?				
64-0004	CCGS SIR JOHN A. MACDONALD	Aug. 28-Sept. 3	Temperature	Reversing thermometer	[.02C°,.03C°]	2	Byam Channel		MEDS# 180264008
			Salinity	Salinometer?	[.01°/oo,.02°/oo]				
64-0005	ICE CAMP, PACIFIC OCEANOGRAPHIC GROUP	Feb. 3-19	Temperature	Reversing thermometers BT	[.02C°,.03C°] [.2C°,.2C°]	3	Prince Gustaf Adolf Sea	Vertical plankton hauls, acoustics	Herlinveaux (1965)
			Salinity	Salinometer	[.01°/oo,.02°/oo]				
64-0008	MOTOR TOBOGGAN, FREIGHT CANOE, DEFENCE RESEARCH ESTABLISHMENT OTTAWA	May 8-Aug. 25	Temperature	Reversing thermometers BT	[.02C°,.03C°] [.2C°,.2C°]	3	Nansen Sound	O_2, vertical plankton hauls, botany, glaciology, ice physics	MEDS# 180764001 MEDS WL-ID 06680 CODC (1969) Ford and Hattersley-Smith (1965) Hattersley-Smith (1967)
			Salinity	Salinometer?	[.01°/oo,.02°/oo]				
			Water levels	Foxborough tide gauge	?				
65-0005	MOTOR TOBOGGAN, FREIGHT CANOE, DEFENCE RESEARCH ESTABLISHMENT OTTAWA	May 11-Aug. 16	Temperature	Reversing thermometers BT	[.02C°,.03C°] [.2C°,.2C°	3	Nansen Sound, Eureka Sound		MEDS# 180765001 CODC (1969)
			Salinity	Salinometer?	[.01°/oo,.02°/oo]				
66-0010	MOTOR TOBOGGAN, FREIGHT CANOE, DEFENCE RESEARCH ESTABLISHMENT OTTAWA	May 1-July 18	Temperature	Reversing thermometers BT	[.02C°,.03C°] [.2C°,.2C°]	3	Nansen Sound		MEDS# 180766001 CODC (1969)
			Salinity	Salinometer	[.01°/oo,.02°/oo]				

TABLE 1: SUMMARY LISTING OF DATA SETS (Cont'd)

Data Set I.D.	Ship or collecting agency	Dates of measurements	Quantity measured	Instruments or methods used ?=Unknown	Estimate of Data precision and accuracy	Data rating number	Area	Concurrent measurements	Source or reference
67-0002	CCGS LABRADOR PACIFIC OCEANOGRAPHIC GROUP	Aug. 22-Sept. 9	Temperature	Reversing thermometers	[0.02C°,.03C°]	3	Wellington Channel, Norwegian Bay, Eureka Sound, Nansen Sound	Sediment cores, deuterium	MEDS# 180267013 CODC (1968) Herlinveaux (1974) Redfield and Friedman (1969)
				CTD	?				
				BT	[.2C°,.2C°]				
			Salinity	Salinometer	[.01°/oo,.02°/oo]				
				CTD	?				
			Currents	Hydroproducts	?,[±2] (speed) ?,[±10] (direction)				
67-0005	MOTOR TOBOGGAN, FREIGHT CANOE, DEFENCE RESEARCH ESTABLISHMENT OTTAWA	Apr. 19-Aug. 20	Temperature	Reversing thermometers	[.02C°,.03C°]	3	Nansen Sound, Eureka Sound		MEDS# 180767002
				BT?	[.2C°,.2C°]				
			Salinity	Salinometer?	[.01°/oo,.02°/oo]				
68-0001	CCGS LABRADOR	Aug. 18-Sept. 16	Temperature	Reversing thermometers	[.02C°,.03C°]	3	Wellington Channel, Norwegian Bay	O_2, flora & fauna observations from submersible, beach walks	MEDS# 180268013 Herlinveaux (1970)
				BT	[.2C°,.2C°]				
			Salinity	Salinometer	[.01°/oo,.02°/oo]				
68-0008	CANADIAN HYDROGRAPHIC SERVICE	May 1-Sept. 30	Water levels	?	?	2	Nansen Sound, McDougall Sound, Byam Channel		ID 06660/06680/06757 06833/06834 MEDS file C81173B01
69-0014	LAND-BASED CAMP, FROZEN SEA RESEARCH GROUP	Mar. ?-Apr. ?	Temperature	Guildline 8101 CTD	[.01C°],.02C°	1	(d'Iberville Fiord) Nansen Sound		Lake and Walker (1973)
				Thermistors	?,.01C°				
			Salinity	Guildline CTD	[.01°/oo],.04°/oo				
69-0015	LAND-BASED CAMP, FROZEN SEA RESEARCH GROUP	Aug. 12-Sept. 19	Temperature	Thermistors	?,.01C°	2	(d'Iberville Fiord) Nansen Sound		MEDS# 180696670 Lake and Walker (1973) MEDS ID 06670
			Salinity	Salinometer?	[.01°/oo,.02°/oo]				
			Currents	?	?				
			Water levels	Ottboro recorder	?				
69-0016	CANADIAN HYDROGRAPHIC SERVICE	Aug. 1-31	Water levels	?	?	2	Byam Channel		MEDS WL-ID 06835
70-0017	LAND-BASED CAMP, FROZEN SEA RESEARCH GROUP	Mar. 12-Apr. 7	Temperature	Guildline CTD	[.01C°],.02C°	2	(d'Iberville Fiord) Nansen Sound		Lake and Walker (1973)
				Thermistors	?,01C°				
			Salinity	Guildline CTD	[.01°/oo],.04°/oo				
			Water levels	Ottboro recorder	?				

TABLE 1: SUMMARY LISTING OF DATA SETS (Cont'd)

Data Set I.D.	Ship or collecting agency	Dates of measurements	Quantity measured	Instruments or methods used ?=Unknown	Estimate of Data precision and accuracy	Data rating number	Area	Concurrent measurements	Source or reference
70-0018	LAND-BASED CAMP, FROZEN SEA RESEARCH GROUP	Aug. 15-Oct. 4	Temperature Salinity Water levels	Thermistor chains Salinometer Ottboro recorder	?,.01C° [.01°/oo,.02°/oo] ?	2	(d'Iberville Fiord) Nansen Sound		Lake and Walker (1973)
70-0019	UNKNOWN	May 18-June 1	Temperature Density	?	?	2	Sverdrup Channel		Serson (1974)
71-0015	LAND-BASED CAMP, FROZEN SEA RESEARCH GROUP	Mar. 17-31	Temperature Salinity	Guildline CTD	[.01C°],.02C° [.01°/oo],.04°/oo	2	(d'Iberville Fiord) Nansen Sound		Lake and Walker (1973)
72-0023	LAND-BASED CAMP, FROZEN SEA RESEARCH GROUP	Aug. 20 Dec. 31	Temperature Water levels	Thermistor Chains FSRG gauge	?,.01C° 0.004 m,0.02 m	2	(d'Iberville Fiord) Nansen Sound		Frozen Sea Research Group, Institute of Ocean Sciences
72-0024	UNKNOWN	May 7	Salinity	?	?	2	Sverdrup Channel		Serson (1974)
73-0006	ICE CAMP, INSTITUTE OF OCEAN SCIENCES	Apr. 23	Temperature Salinity	Guildline 8101/8202 CTD	±.01C°,±.03C° ±.01°/oo,±.04°/oo	3	Wellington Channel	Silicate, nitrate, phosphate	Herlinveaux et al. (1978)
73-0008	SIR WILLIAM ALEXANDER INSTITUTE OF OCEAN SCIENCES	Aug. 28	Temperature Salinity	Guildline 8101/8202 CTD	±.01C°,±.04C° ±.01°/oo,±.1°/oo	3	Wellington Channel	Silicate, nitrate, phosphate	Herlinveaux et al. (in preparation)
73-0012	UNKNOWN	May 14-17	Currents	Marsh-McBirney electromagnetic?	?	2	Sverdrup Channel, (Rens Fiord)		Serson (1974)
73-0013	LAND-BASED CAMP, FROZEN SEA RESEARCH GROUP	Mar. 31-Apr. 21	Temperature Salinity Water levels	Guildline 8101A CTD FSRG gauge	±.001C°,±.01C° ±.001°/oo,±.02°/oo .004 m, .02 m	4 2	(d'Iberville Fiord) Nansen Sound	O_2	Frozen Sea Research Group, (1973)

TABLE 1: SUMMARY LISTING OF DATA SETS (Cont'd)

Data Set I.D.	Ship or collecting agency	Dates of measurements	Quantity measured	Instruments or methods used ?=Unknown	Estimate of Data precision and accuracy	Data rating number	Area	Concurrent measurements	Source or reference
73-0014	CANADIAN HYDROGRAPHIC SERVICE	Apr. 1-May 31	Water levels	?	?	2	(Surprise Fiord) Norwegian Bay		ID 06600 MEDS file C81173B01
73-0015	LAND-BASED CAMP, FROZEN SEA RESEARCH GROUP	June 1-June 19, 1974	Water levels Temperature	FSRG gauge Thermistor	.004 m, .02 m [?,.01C°]	2	(d'Iberville Fiord) Nansen Sound	River runoff	Lake and Walker (1976)
74-0018	LAND-BASED CAMP, BEAK CONSULTANTS FOR PANARCTIC OILS	June 22-July 8	Temperature Salinity Currents	? ? ?	? ? ?	2	Edinburgh Sea, Maclean Strait		Beak Consultants Ltd. (1974)
74-0025	TRACKED VEHICLE, SMALL VESSEL, FROZEN SEA RESEARCH GROUP	Mar. 30-Aug. 25 Mar. 28-June 19, 1975	Temperature Salinity Currents Water levels	Guildline 8101A CTD Aanderaa FSRG guauge	±.001C°, ±.01-.05C° ±.001°/oo, ±.005-.05°/oo ?, [±1] (speed) ? (direction) .004 m, .02 m	4 2 2 2	(d'Iberville Fiord) Nansen Sound		Frozen Sea Research Group (1975) Lake and Walker (1976)
75-0016	BEAK CONSULTANTS FOR PANARCTIC OILS LTD.	June 1-July 30	Temperature Salinity Currents	Aanderaa C.M. Interocean CTD Aanderaa C.M. Interocean CTD Aanderaa RCM-4	[±.02C°, ±.15C°] [±.02C°], ? [±.1°/oo], ? [±.02°/oo], ? ? [±1] (speed) ? (direction)	1 1	Hazen Strait, Fitzwilliam Strait, Hecla and Griper Bay		Beak Consultants Ltd. (1976a)
75-0017	BEAK CONSULTANTS FOR PANARCTIC OILS LTD.	Mar. 3-June 17	Temperature Salinity Currents Water levels	? ? Aanderaa RCM-4 ?	? ? ?, [±1] (speed) ? (direction) ?	2 3 2	Byam Martin Channel		Beak Consultants (1976b)

TABLE 1: SUMMARY LISTING OF DATA SETS (Cont'd)

Data Set I.D.	Ship or collecting agency	Dates of measurements	Quantity measured	Instruments or methods used ?=Unknown	Estimate of Data precision and accuracy	Data rating number	Area	Concurrent measurements	Source or reference
75-0018	BEAK CONSULTANTS FOR PANARCTIC OILS LTD.	Jan. 30-July 6	Temperature Salinity Currents	Interocean CTD Aanderaa RCM-4	[±.02C°],? [±.02°/oo],? ?,[±1] (speed) ? (direction)	1	MacLean Strait, Desbarats Strait, Hazen Strait		Beak Consultants (1976c)
75-0019	BEAK CONSULTANTS FOR PANARCTIC OILS LTD.	Mar. 2-Apr. 12	Temperature Salinity Currents	Beckman RS5-3 CTD Cushing	?,[±.1C°] ?,[±.3°/oo] ?	2 2	East Sabine Peninsula		Beak Consultants (1975b)
75-0020	BEAK CONSULTANTS FOR PANARCTIC OILS LTD.	Nov.23,1975-Feb.29,1976	Currents Temperature Salinity Water levels	Aanderaa Aanderaa Stephen	?,[±1] (speed) ? (direction) ?,[±.15C°] [±.1°/oo],? ?	3 1 1	Hecla and Griper Bay		Beak Consultants (1976d)
75-0021	BEAK CONSULTANTS FOR PANARCTIC OILS LTD.	Dec.13,1975-Apr.21,1976	Currents Temperature Salinity Water levels	Cushing, Aanderaa Aanderaa Stephen	? ?,[±1] (speed) ? (direction) ?, [±.15C°] [±.1°/oo], ? ?	1 3 1 1	(Danish Strait) Maclean Strait		Beak Consultants (1976e)
75-0022	INNOVATIVE VENTURES FOR PANARCTIC OIL LTD.	Dec.4,1975-May 29,1976	Currents Temperature Salinity Water levels	Cushing Aanderaa Stephen	? [±.02C°,.15C°] [±.1°/oo],? ?	2 2 1	Hazen Strait, MacLean Strait, Prince Gustaf Adolf Sea	Ice motion	Innovative Ventures (1976)
75-0023	BEAK CONSULANTS FOR PANARCTIC OILS LTD.	July 10-16	Temperature Salinity	Beckman RS5-3 CTD	?,[±.1C°] ?,[±.3°/oo]	1	Danish Strait, MacLean Strait		Beak Consultants (1975a)
75-0039	LAND-BASED CAMP, FROZEN SEA RESEARCH GROUP, INSTITUTE OF OCEAN SCIENCES	Mar. 28-June 12	Temperature Salinity Currents Current profiles Water levels	Guildline 8101A CTD Aanderaa Ultrasonic Christian Michelsen C.M. FSRG gauge	±.001C°,±.005-.1C° ±.001°/oo,±.01-.02°/oo ?,[±1] (speed) ? (direction) ?,±.25 (speed) ?,±10 (direction) .004 m, .02 m	4 2 2 2	(d'Iberville Fiord) Nansen Sound	O_2	Frozen Sea Research Group (1976a) Lake and Walker (1976)

TABLE 1: SUMMARY LISTING OF DATA SETS (Cont'd)

Data Set I.D.	Ship or collecting agency	Dates of measurements	Quantity measured	Instruments or methods used ?=Unknown	Estimate of Data precision and accuracy	Data rating number	Area	Concurrent measurements	Source or reference
75-0040	CANADIAN HYDROGRAPHIC SERVICE	Aug.1,1975-Aug.31,1976	Water levels	?	?	2	Byam Channel		MEDS WL-ID 06835
76-0014	BEAK CONSULTANTS FOR PANARCTIC OILS LTD.	Jan. 15-Apr. 17	Currents Temperature Salinity Water levels	Aanderaa Aanderaa Stephen	?,[±1] (speed) ? (direction) [±0.02C°,±0.15C°] [±0.1°/oo],? ?	0 1	Hecla and Griper Bay		Beak Consultants (1976f)
76-0015	INNOVATIVE VENTURES FOR PANARCTIC OILS LTD.	May 15-June 16	Currents	Aanderaa	?,[±1] (speed) ? (direction)	2	Arnot Strait Erskine Inlet		Innovative Ventures (1976)
76-0016	OCEAN AND AQUATIC SCIENCES, CENTRAL REGION	Mar. 16-May 7	Currents Temperature Salinity Water levels	Marsh-McBirney, Endeco E.M. Aanderaa Aanderaa	?,[±1](speed) ?,[±2] (speed) ?,[±.05C°] ?,[±.15°/oo] ?	3 3 3	Penny Strait, Belcher Channel		Peck (1977)
76-0017	FROZEN SEA RESEARCH GROUP, INSTITUTE OF OCEAN SCIENCES	Apr.20,1976-Aug.11,1977	Currents Temperature Salinity	Aanderaa Guildline 8101A	?,[±1] (speed) ?,±3→±7 (direction) ±.002C°,±.01C° ±.004°/oo,±.02°/oo	3 4	Byam Channel, Austin Channel		Greisman and Lake (1978) Frozen Sea Research Group (1976b) Frozen Sea Research Group (1978)
76-0018	FROZEN SEA RESEARCH GROUP, INSTITUTE OF OCEAN SCIENCES	Mar. 8-31	Temperature Salinity Water levels	Guildline? 8101A FSRG gauge	±.002C°,±.005→±.01C° ±.004°/oo,±.01→±.02°/oo .004 m, .02 m	3 2	(d'Iberville Fiord, Greely Fiord) Nansen Sound	O_2	Frozen Sea Research Group (1976)
76-0019	PANARCTIC OILS LTD.	Dec.21,1976-Apr.26,1977	Water levels	?	?	3	Hecla and Griper Bay		Van Ieperen (1981)
77-0019	TRACKED VEHICLES, FROZEN SEA RESEARCH GROUP, INSTITUTE OF OCEAN SCIENCES	Mar.4-27	Temperature Salinity Water levels	Guildline 8101A Aanderaa	±.002C°,±.005C° ±.004°/oo,±.01°/oo ?	4 2	(d'Iberville Fiord)	Nutrients, O_2, deuterium, tritium	Frozen Sea Research Group (1977)

TABLE 1: SUMMARY LISTING OF DATA SETS (Cont'd)

Data Set I.D.	Ship or collecting agency	Dates of measurements	Quantity measured	Instruments or methods used ?=Unknown	Estimate of Data precision and accuracy	Data rating number	Area	Concurrent measurements	Source or reference
77-0022	INNOVATIVE VENTURES LTD. FOR PANARCTIC OILS LTD.	Mar. 24-May 1	Currents	Aanderaa	?,[±1] (speed) ? (direction)	3	Hecla and Griper Bay		Innovative Ventures Ltd. (1977a)
			Temperature	Aanderaa	[±.02C°,±.15C°]	3			
			Salinity		[±.1°/oo],?				
77-0023	INNOVATIVE VENTURES LTD. FOR PANARCTIC OILS LTD.	Mar. 2-July 1	Currents	Aanderaa	?,[±1] (speed) ? (direction)	2	Hazen Strait, MacLean Strait		Innovative Ventures Ltd. (1977b)
			Temperature	?		2			
			Salinity	?					
77-0024	PANARCTIC OILS LTD.	Dec.19,1977-Apr.17,1978	Water levels	Stephen	?	1	Hecla and Griper Bay		Panarctic Oils Ltd. (1978a)
			Currents	Aanderaa	?,[±1](speed)	3			
			Temperature	Guildline 8705	?	3			
			Salinity						
77-0025	PANARCTIC OILS LTD.	Nov.5,1977-Apr.17,1978	Water levels	Stephen	?	1	Hazen Strait		Panarctic Oils Ltd. (1978b)
			Currents	Aanderaa	?,[±1] (speed)	3			
			Temperature	Guildline 8705	?	3			
			Salinity						
77-0026	TRACKED VEHICLE, FROZEN SEA RESEARCH GROUP, INSTITUTE OF OCEAN SCIENCES	Mar.25,1977-Mar.22,1978	Currents	Aanderaa	?,[±1] (speed) ? (direction)	3	Crozier Strait, Pullen Strait		Frozen Sea Research Group (1977) Greisman and Lake (1978)
			Temperature	Guildline 8101A	+.002C°,±.005C°	4			
			Salinity	Aanderaa WLR-4	±.004°/oo,±.01°/oo				
			Water levels		[.002 m, .02 m]	3			
77-0033	PETRO-CANADA	Nov.28,1977-July 18,1978	Currents	Aanderaa RCM 4	?,[±1] (speed) ? (direction)	0	Maclean Strait, Hazen Strait, Edinburgh Sea, Prince Gustaf Adolf Sea, West Lougheed Island	Ice motions, wind speed & direction, air temperature	Fissel (1982)
78-0007	OCEAN AND AQUATIC SCIENCES, CENTRAL REGION	Mar. 15-Apr. 26	Currents	Aanderaa	?,[±1] (speed) ? (direction)	3	Byam Channel, Austin Channel, McDougall Sound		Prinsenberg (1978) Peck (1980a)
			Temperature	Guildline 8706	[±.0005C°],±.01C°				
			Salinity		[±.001°/oo],±.01°/oo				

TABLE 1: SUMMARY LISTING OF DATA SETS (Cont'd)

Data Set I.D.	Ship or collecting agency	Dates of measurements	Quantity measured	Instruments or methods used ?=Unknown	Estimate of Data precision and accuracy	Data rating number	Area	Concurrent measurements	Source or reference
78-0010	PANARCTIC OILS LTD.	Jan. 21-Apr. 29	Currents	Aanderaa	?,[±1] (speed) ? (direction)	3	East Sabine Peninsula		Van Ieperen (1981)
			Water levels	?	?	2			
78-0011	PANARCTIC OILS LTD.	Jan. 23-June 24	Currents	Aanderaa	?,[±1] (speed) ? (direction)	1	Edinburgh Sea, Norwegian Bay		Panarctic Oils Ltd. (1979d)
78-0012	FROZEN SEA RESEARCH GROUP, INSTITUTE OF OCEAN SCIENCES	Mar. 19-July 9	Currents	Aanderaa	?,[±1] (speed) ? (direction)	3	Wellington Channel, Crozier Strait, Pullen Strait		Frozen Sea Research Group (1981)
			Temperature	Guildline 8101A	±.002C°,±.005C°	4			
			Salinity		±.004°/oo,±.01°/oo				
78-0013	PANARCTIC OILS LTD.	Dec.3,1978-May 3,1979	Currents	Aanderaa	?,[±1] (speed) ? (direction)	3	Hazen Strait		Panarctic Oils Ltd. (1979a)
			Temperature	Guildline model 8705	[±.0005C°,±.005C°]	3			
			Salinity	Stephen	[±.001°/oo,±.005°/oo]				
			Water levels		?	1			
78-0014	PANARCTIC OILS LTD.	Dec.19,1978-Apr.6,1979	Currents	Aanderaa	?,[±1] (speed) ? (direction)	3	Desbarats Strait		Panarctic Oils Ltd. (1979b)
			Temperature	Guildline model 8705	[±.005C°,±.005C°]	3			
			Salinity	Stephen 2A-35	[±.001°/oo,±.005°/oo]				
			Water levels		?	1			
78-0016	PANARCTIC OILS LTD.	Jan. 21-Apr. 29	Water levels	?	?	2	Byam Martin Channel		Van Ieperen (1981)
79-0017	PETRO-CANADA	Jan.25-June 22	Currents	Aanderaa	?, [±1] (speed) ? (direction)	2	Maclean Strait, Hazen Strait, Edinburgh Sea, Prince Gustaf Adolf Sea, West Lougheed Island	Ice motions, wind speed & direction, air temperature	Fissel (1982)
79-0018	PANARCTIC OILS LTD.	Jan. 9-May 9	Currents	Aanderaa	?,[±1] (speed) ? (direction)	3	West Lougheed Island		Panarctic Oils Ltd. (1979c)
			Temperature	Guildline model 8705	[±.0005C°,±.005C°]	3			
			Salinity	Stephen,	[±.001°/oo,±.005°/oo]				
			Water levels	Aanderaa		1			

TABLE 1: SUMMARY LISTING OF DATA SETS (Cont'd)

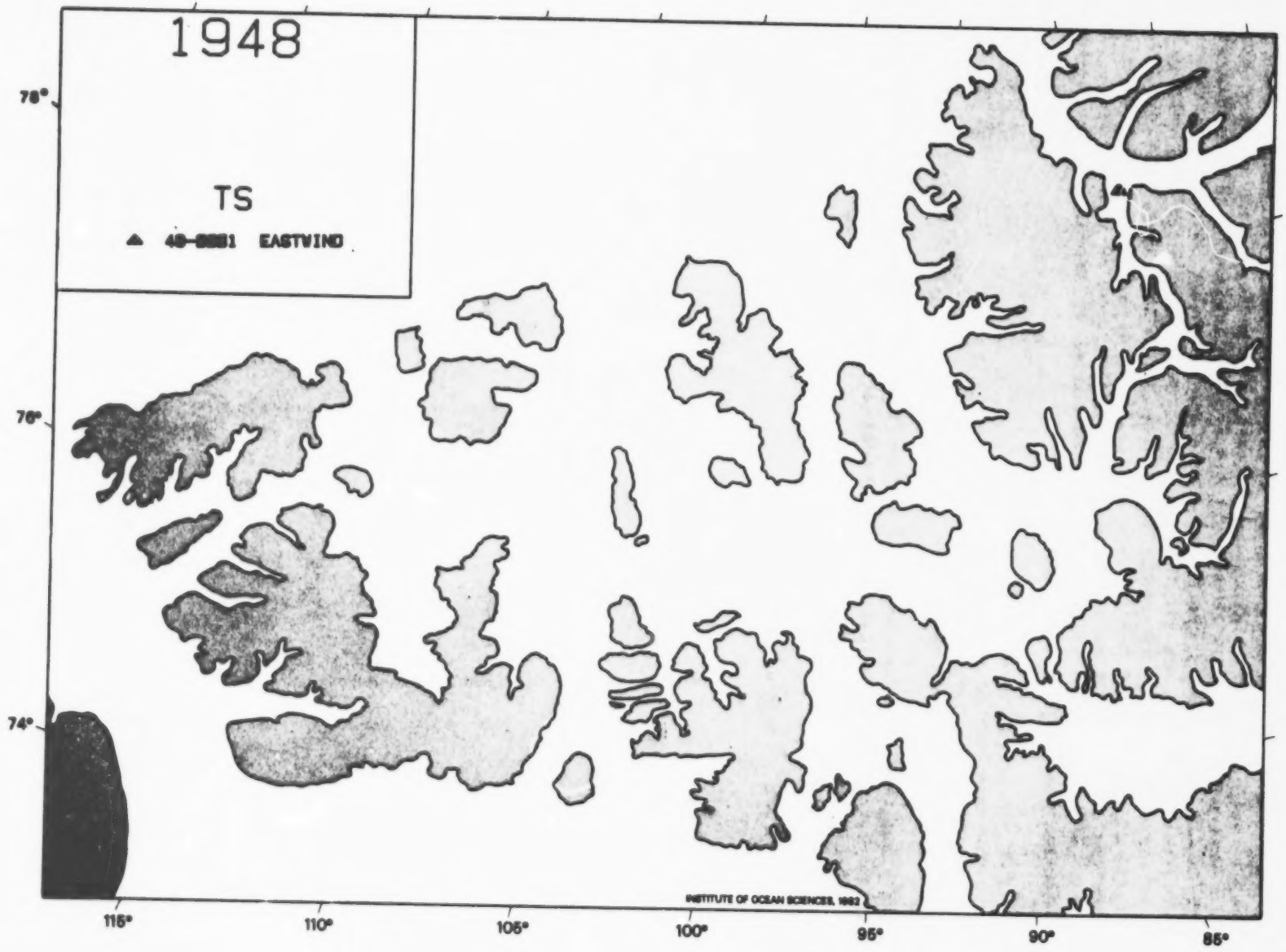
Data Set I.D.	Ship or collecting agency	Dates of measurements	Quantity measured	Instruments or methods used ?=Unknown	Estimate of Data precision and accuracy	Data rating number	Area	Concurrent measurements	Source or reference
79-0019	OCEAN AND AQUATIC SCIENCES CENTRAL REGION	Apr. 3-May 9	Current meter Temperature Salinity	Aanderaa Guildline model 8706	?,[±1] (speed) ? (direction) [±.0005C°],±.01C° [±.001°/oo,],±.01°/oo	3	Byam Martin Channel, Hazen Strait, Wilkens Strait, Desbarats Strait		Peck (1980a) Peck (1980b)
79-0020	PANARCTIC OILS LTD.	Nov.11,1979-May 13, 1980	Currents Temperature Salinity Water levels	Aanderaa Guildline model 8705 Stephen	?,[±1] (speed) ? (direction) [±.0005C°,±.005C°] [±.001°/oo,±.005°/oo] ?	3 1 1	Hazen Strait, West Lougheed Island		Panarctic Oils Ltd. (1980a)
79-0021	CANADIAN HYDROGRAPHIC SERVICE	Mar. 1-Apr. 23	Water levels	Aanderaa WLR-5 or Applied Microsystems TG-12A	[.002, .02 m]	3	Hazen Strait, MacLean Strait, Edinburgh Sea, Penny Strait, Belcher Channel, Wellington Channel,		Canadian Hydrographic Service
79-0022	PANARCTIC OILS LTD.	Dec.5,1979-Apr.27,1980	Currents Temperature Salinity Water levels	Aanderaa Guildline model 8705 Stephen, Aanderaa	?,[±1] (speed) ? (direction) [±.0005C°,±.005C°] [±.001°/oo,±.005°/oo] ? ?	0 1 2	Hazen Strait, Edinburgh Sea		Panarctic Oils Ltd. (1980b) Van Ieperen (1981)
80-0013	FROZEN SEA RESEARCH GROUP, INSTITUTE OF OCEAN SCIENCES	Mar. 8-Apr. 12	Currents	Aanderaa	?,[±2] (speed) ? (direction)	3	(Dundas Island) Queens Channel	Meteorological and turbulent atmospheric fluxes	Topham et al. (1983)
80-0014	DOBROCKY SEATECH LTD. FOR POLAR GAS	Apr. 10-May 1	Currents Water levels	Aanderaa Aanderaa WLR5A	?,[±1] (speed) ? (direction) [.002, .02 m]	3	West Lougheed Island		Juhasz (1980)
80-0015	CANADIAN HYDROGRAPHIC SERVICE	Mar. 24-Apr. 26	Water levels	Aanderaa WLR-5	[.002, .02 m]	3	(Stuart Bay) Queens Channel, Wellington Channel		Canadian Hydrographic Service

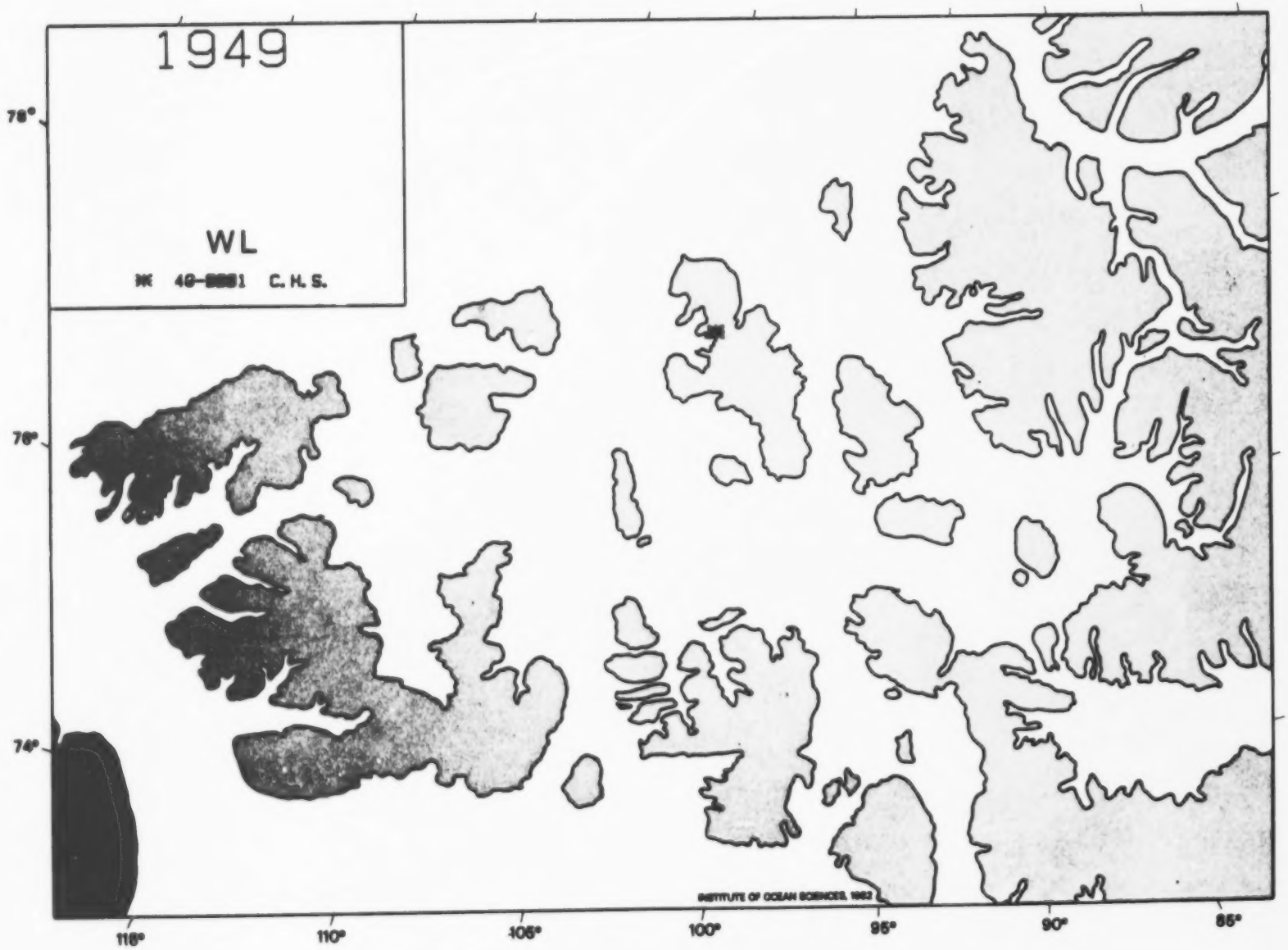
9. MAPS

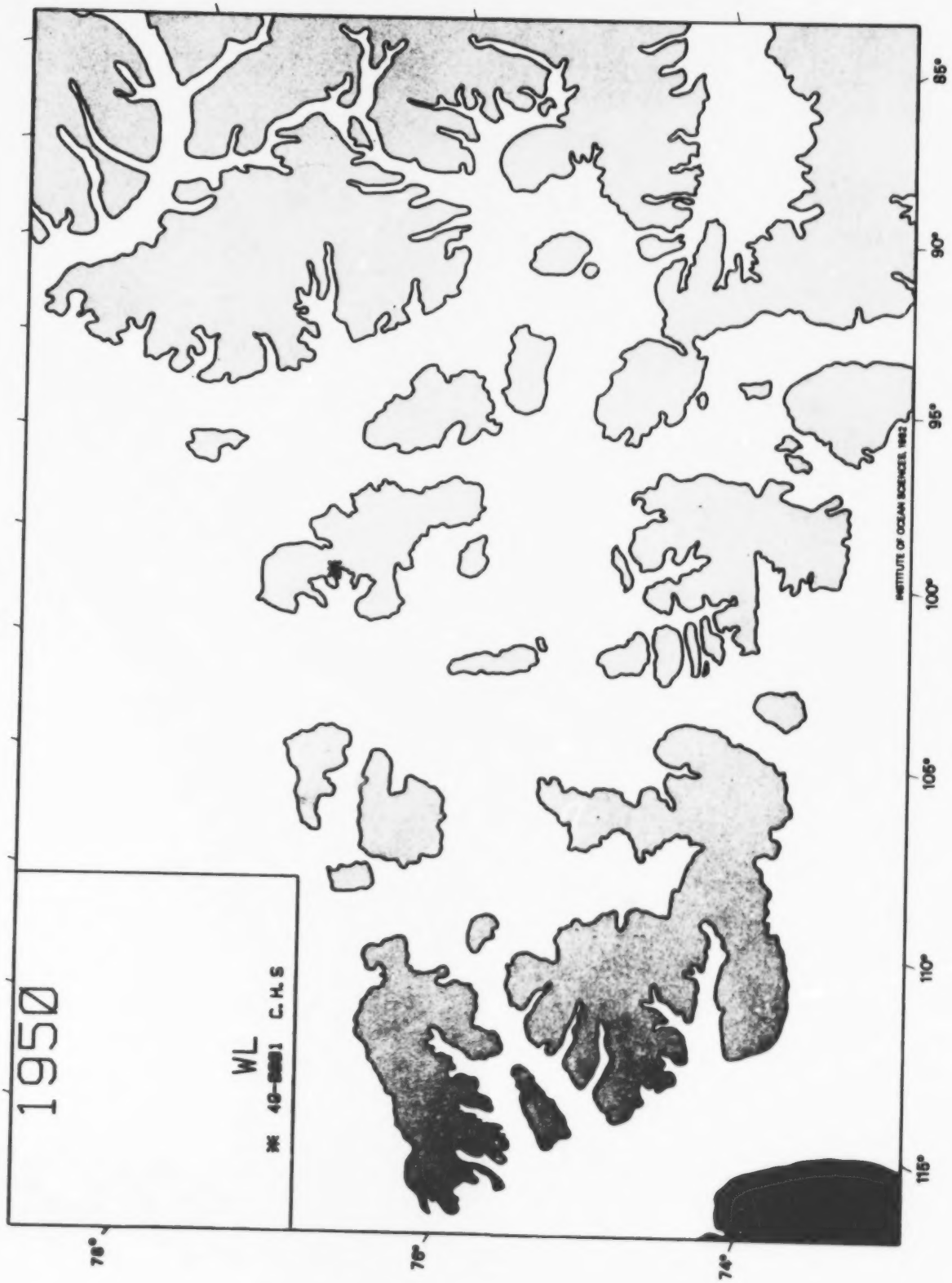
This section contains maps showing the yearly distribution of temperature, salinity, current, water level, and surface drift measurements. Two base maps are used, an overall 1:4,750,000 scale map and an enlarged 1:2,000,000 scale map of the Nansen-Eureka sounds area. Temperature-salinity and water level data are plotted together if no current meter data existed in that year. If current meter data were collected in that year, then the first map(s) will show only temperature and salinity data, and a second map will show the current meter data, as well as any water level or drifter data. The areas of Lagrangian drifter data are indicated by hatching. The legend indicates the following data types:

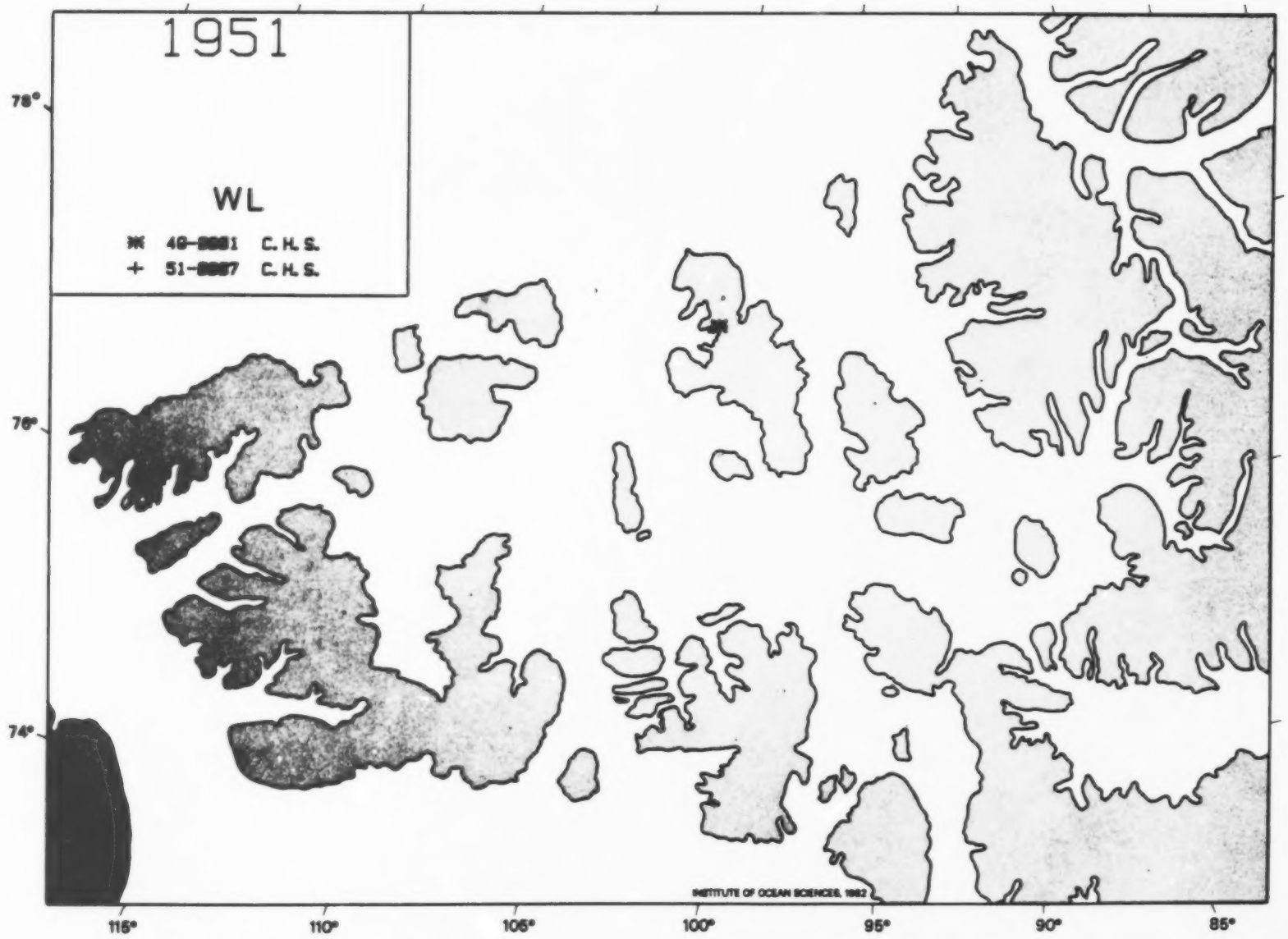
CM - current meter data
DRF - drifter data
TS - temperature-salinity data
WL - water level data

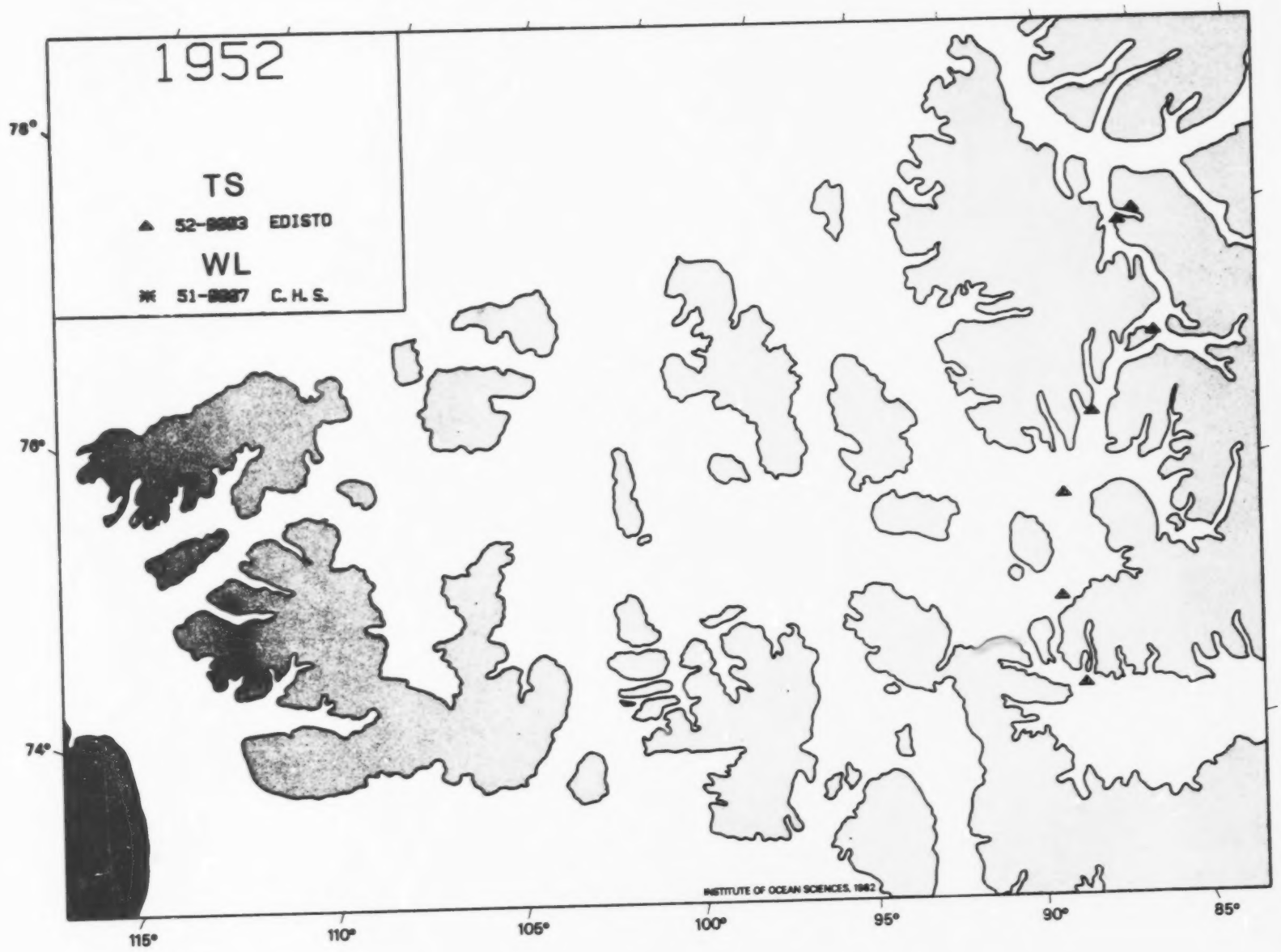
The coastlines have been smoothed and small islands removed. Vessel/agencies in the legend are abbreviations. Note that cruise station symbols may be different on two different maps.

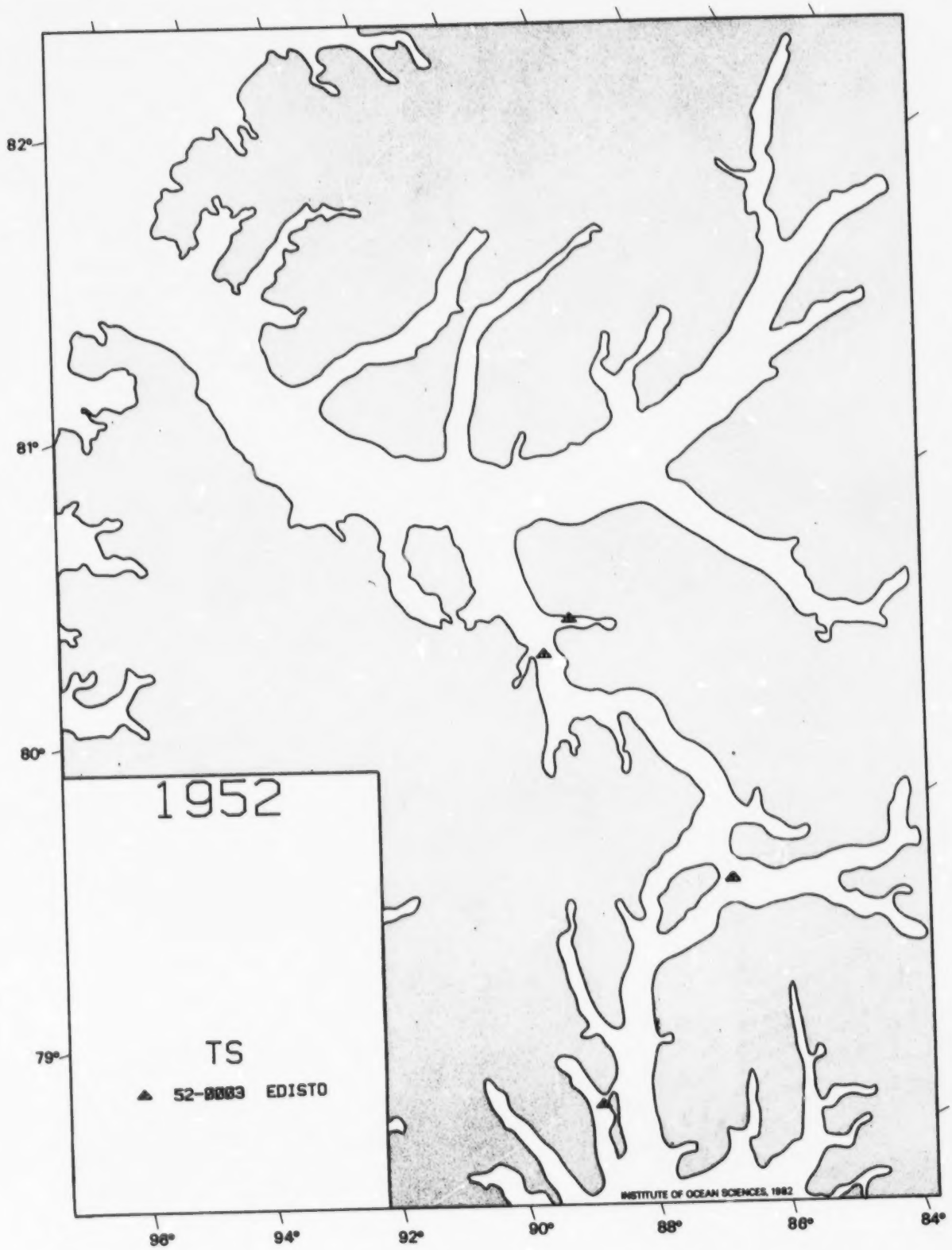

1948
TS
▲ 49-0001 EASTWIND
78°
76°
74°
115°
110°
105°
100°
95°
90°
85°
INSTITUTE OF OCEAN SCIENCES, 1982

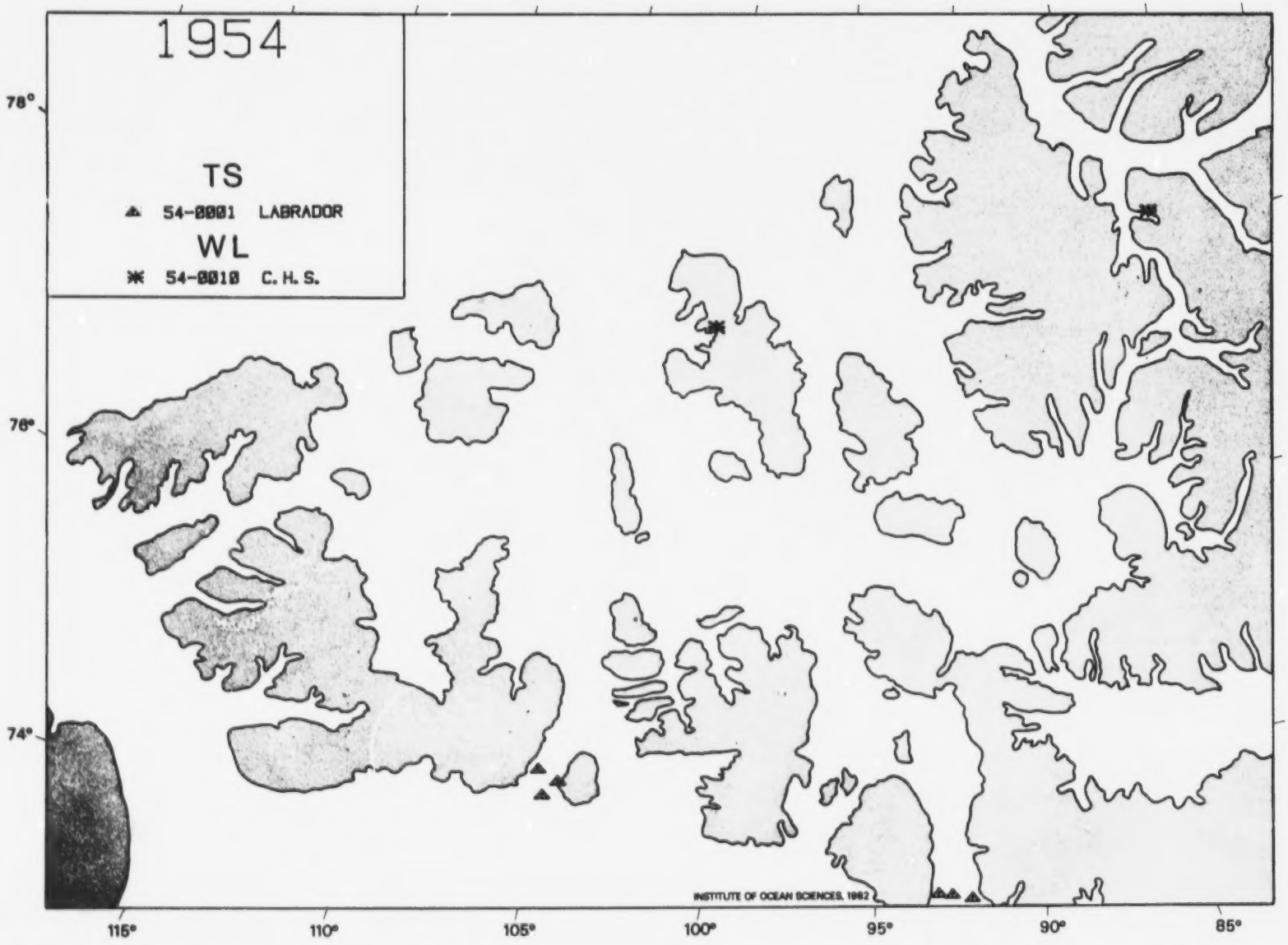

1949
WL
78°
76°
74°
118°
110°
105°
100°
95°
90°
85°

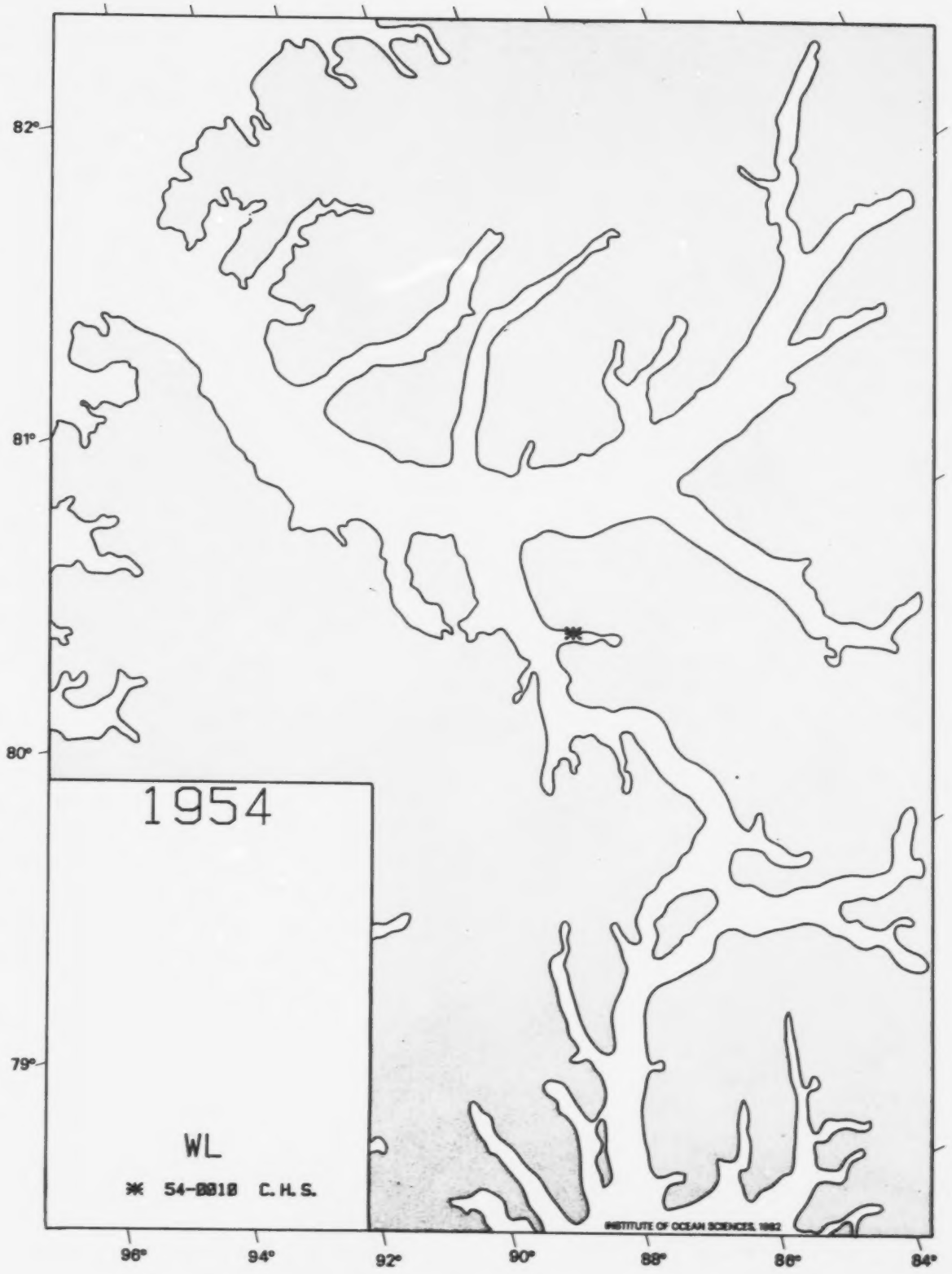

1950
WL
* 40-8881 C.H.S
INSTITUTE OF OCEAN SCIENCES, 1982
78°
76°
74°
115°
110°
105°
100°
95°
90°
85°

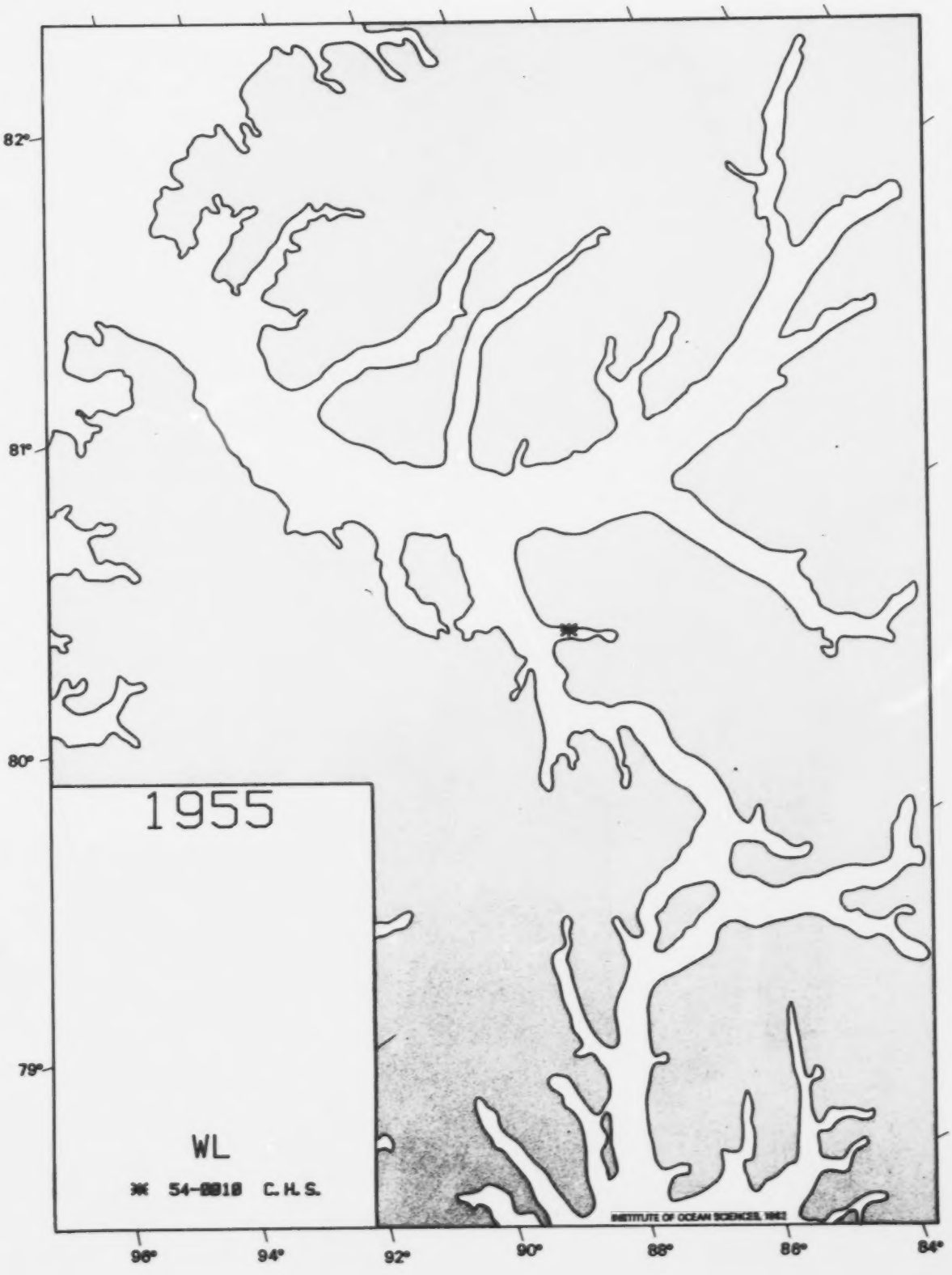

1951
WL
* 49-8881 C.H.S.
+ 51-8887 C.H.S.
78°
76°
74°
116°
110°
105°
100°
95°
90°
85°
INSTITUTE OF OCEAN SCIENCES, 1982

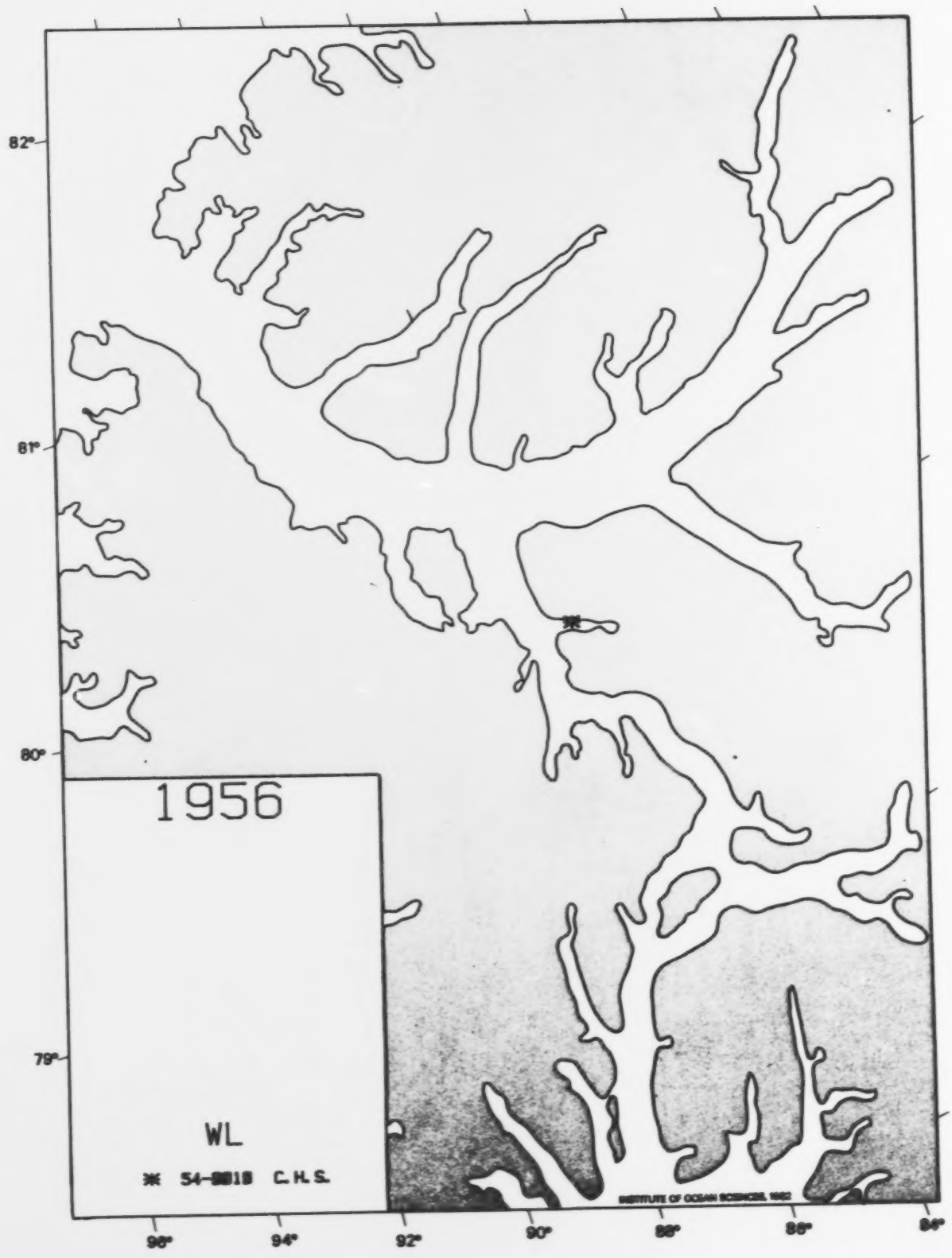

1952
TS
▲ 52-9883 EDISTO
WL
✱ 51-9887 C.H.S.
78°
76°
74°
115°
110°
105°
100°
95°
90°
85°
INSTITUTE OF OCEAN SCIENCES, 1982

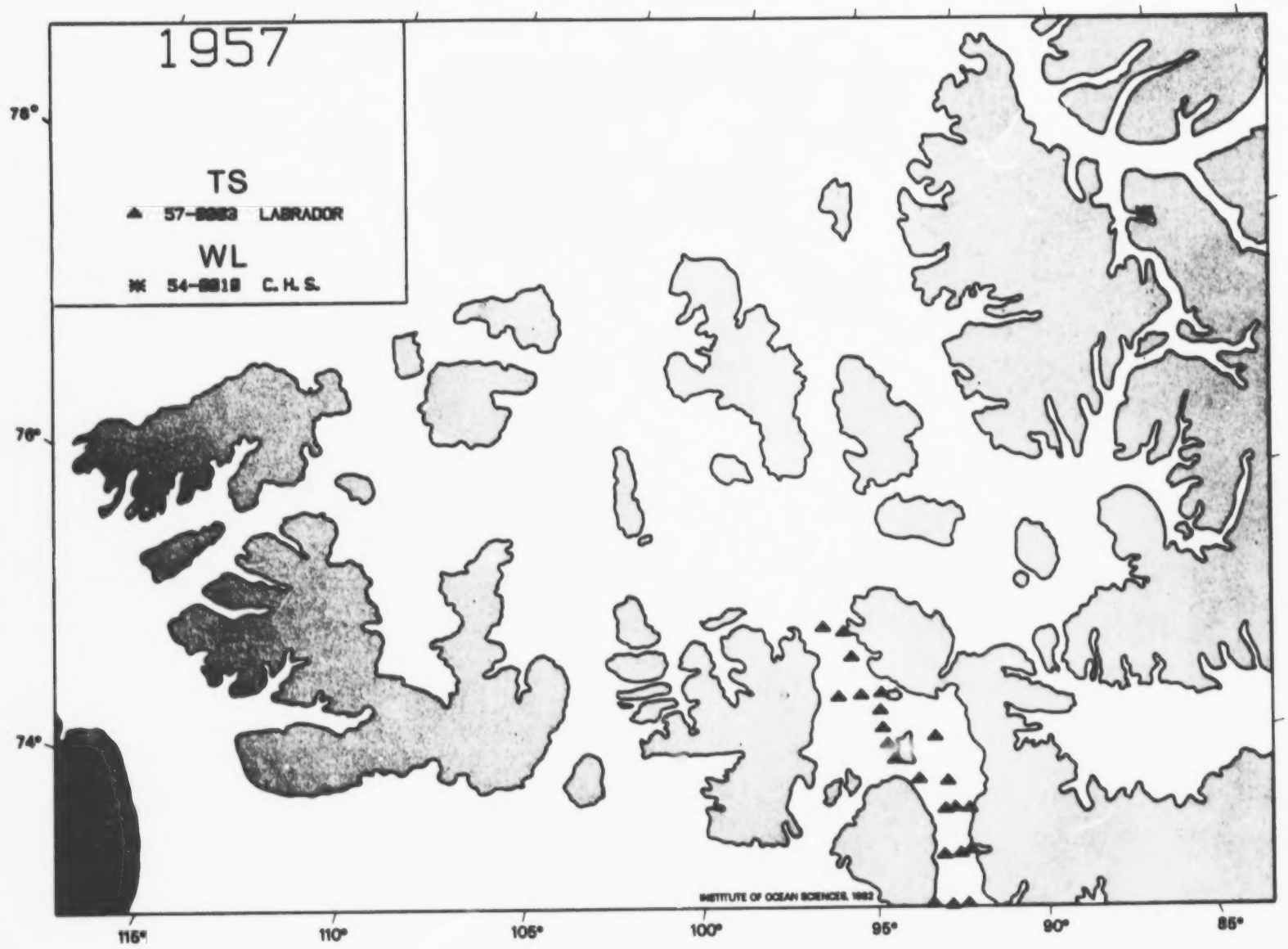

82°
81°
80°
79°
1952
TS
▲ 52-0003 EDISTO
INSTITUTE OF OCEAN SCIENCES, 1982
98°
94°
92°
90°
88°
86°
84°

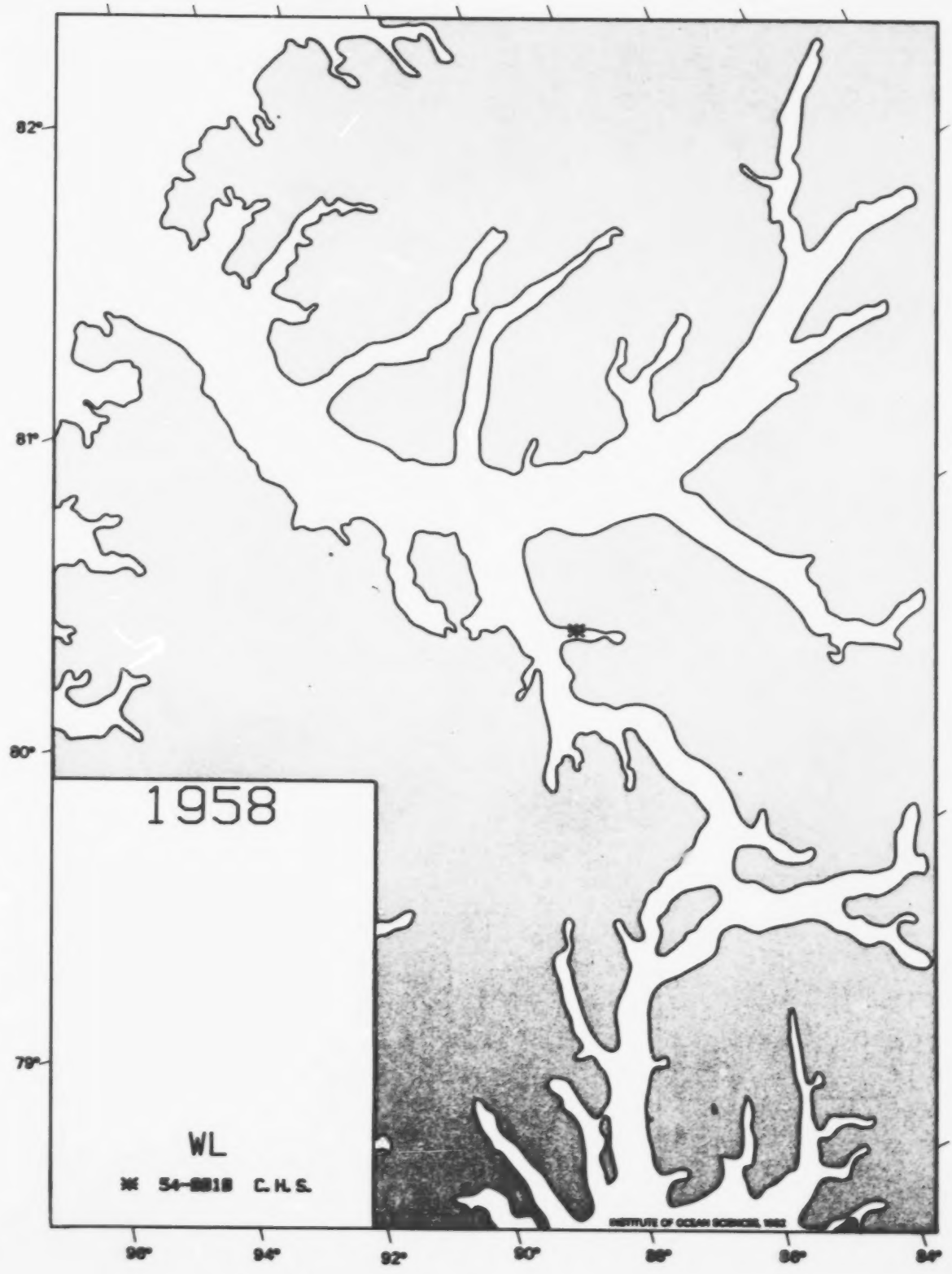

1954
TS
54-0001 LABRADOR
WL
54-0010 C. H. S.
78°
76°
74°
115°
110°
105°
100°
95°
90°
85°
INSTITUTE OF OCEAN SCIENCES, 1992

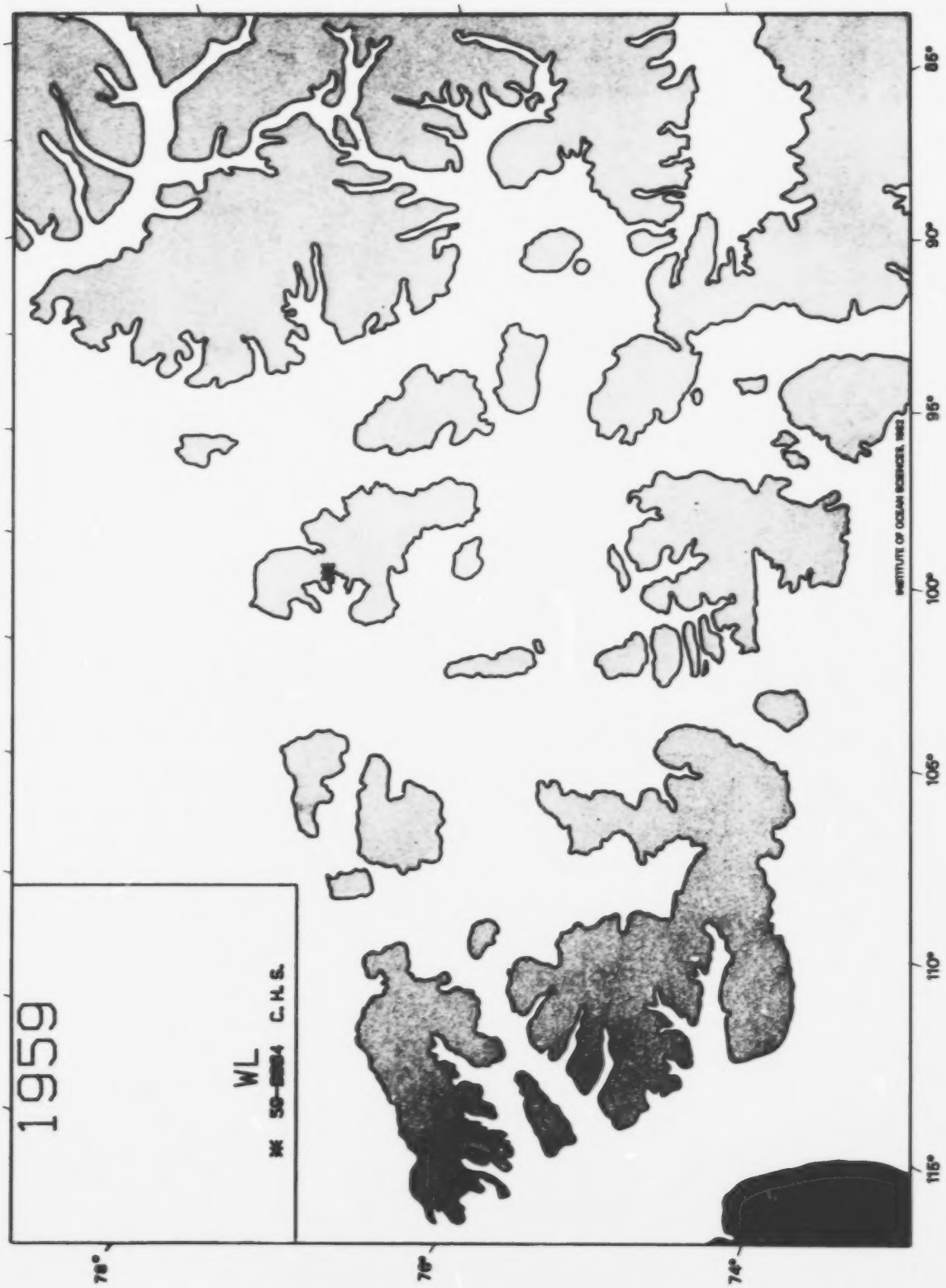

82°
81°
80°
79°
96°
94°
92°
90°
88°
86°
84°
1954
WL
54-0018 C.H.S.
INSTITUTE OF OCEAN SCIENCES, 1982

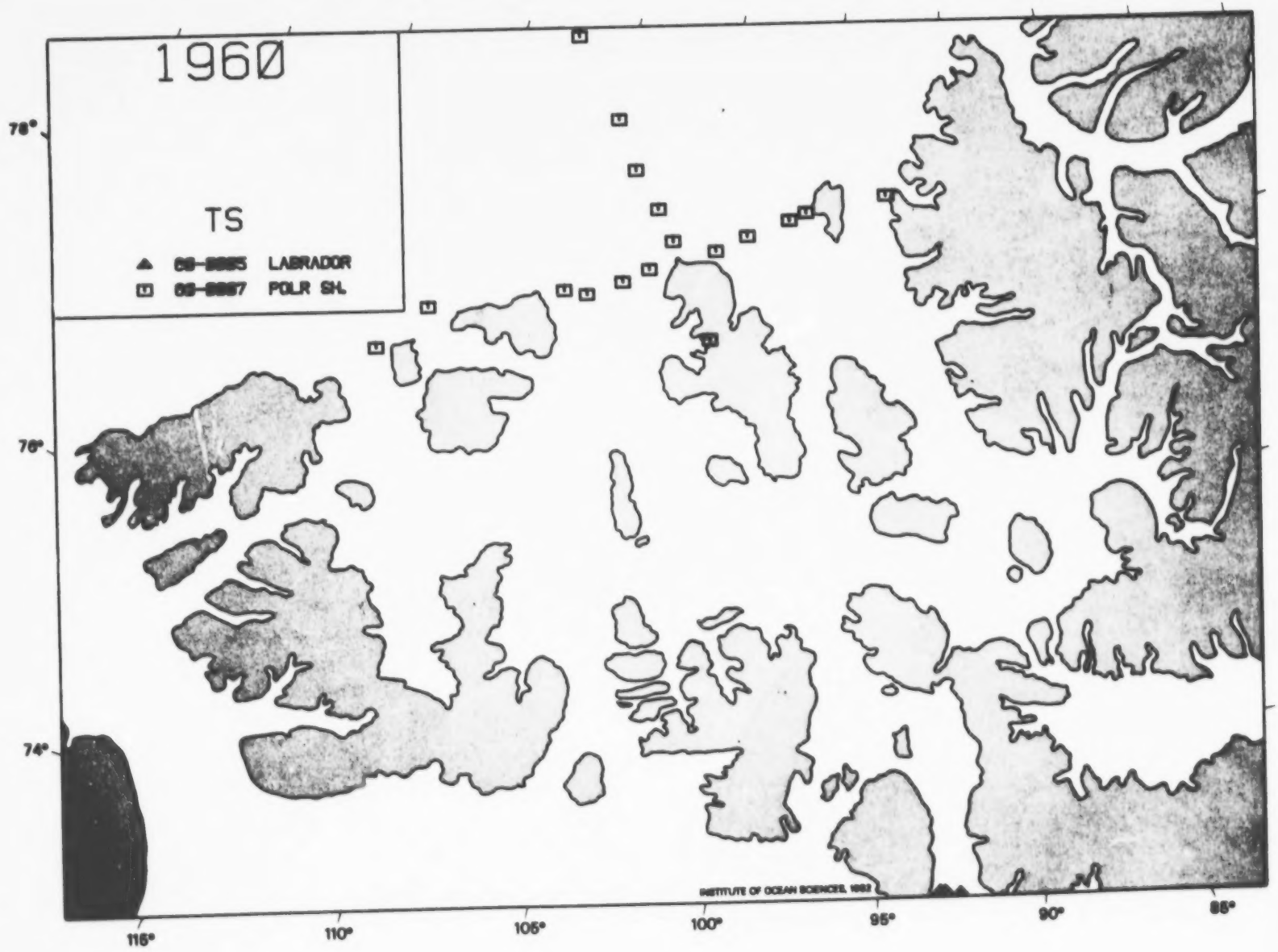

82°
81°
80°
79°
1955
WL
54-8818 C.H.S.
INSTITUTE OF OCEAN SCIENCES, 1982
96°
94°
92°
90°
88°
86°
84°

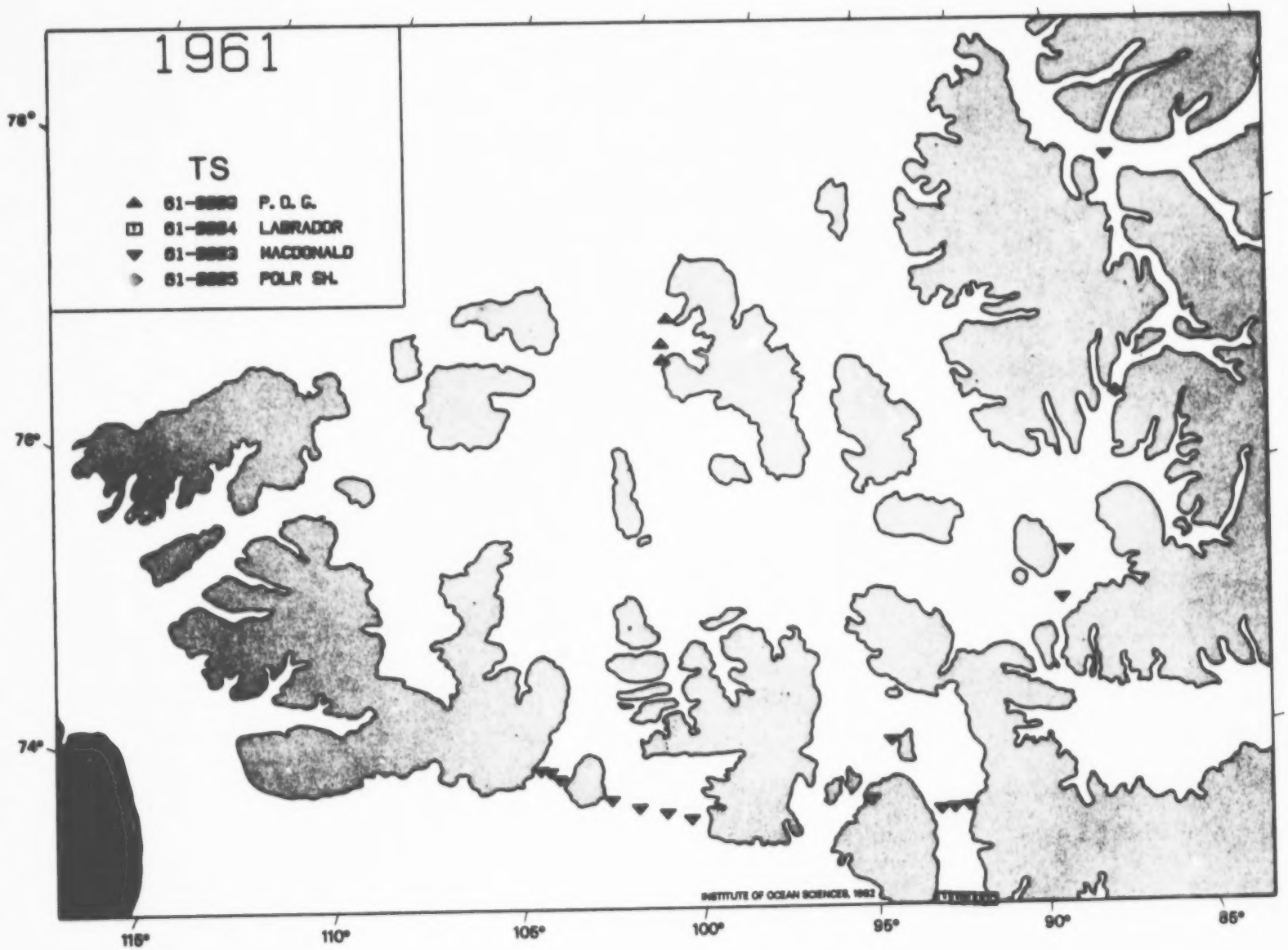

82°
81°
80°
79°
1956
WL
C.H.S.
96°
94°
92°
90°
88°
86°
84°

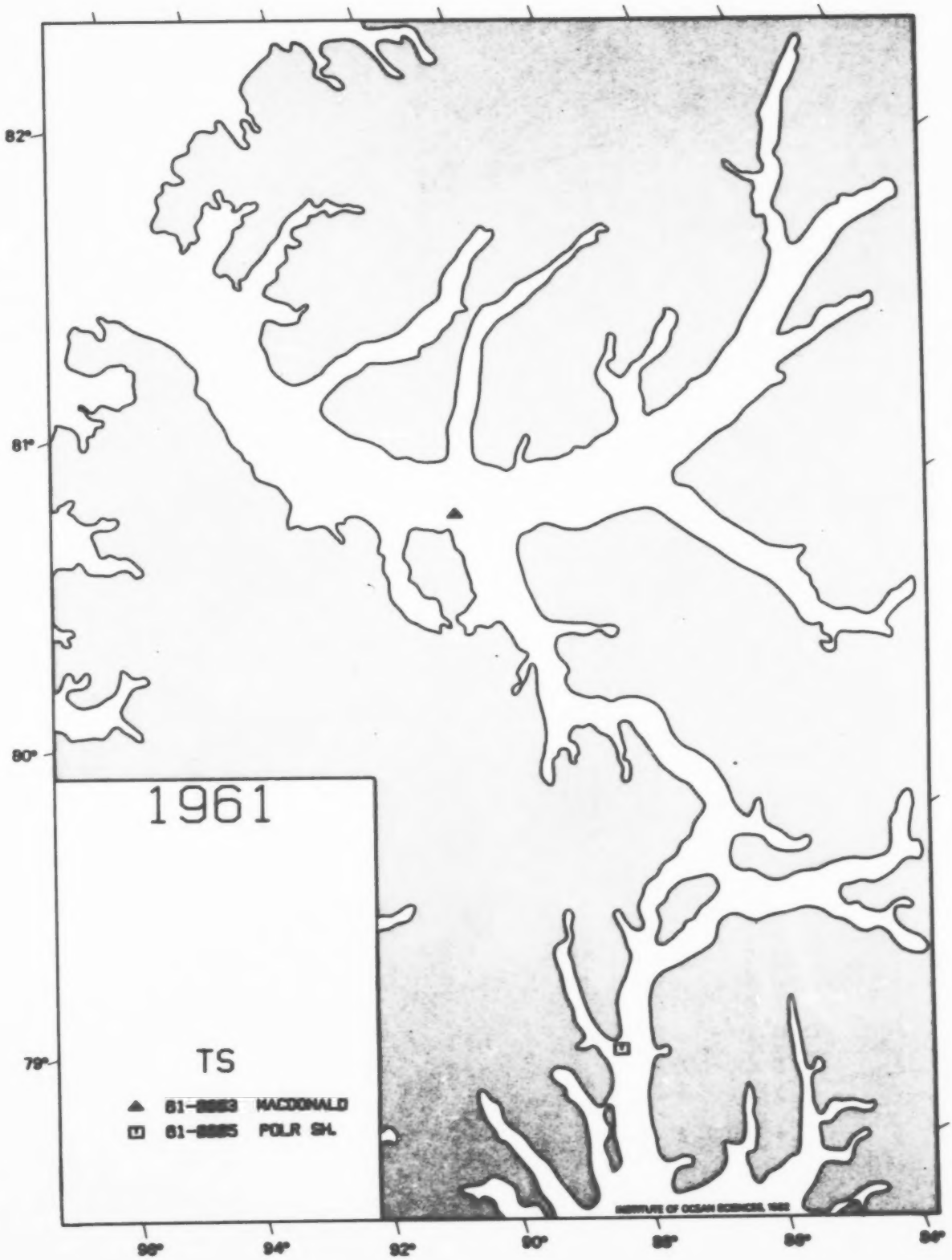

1957
TS
57-9883 LABRADOR
WL
54-9818 C.H.S.
78°
76°
74°
115°
110°
105°
100°
95°
90°
85°
INSTITUTE OF OCEAN SCIENCES, 1982

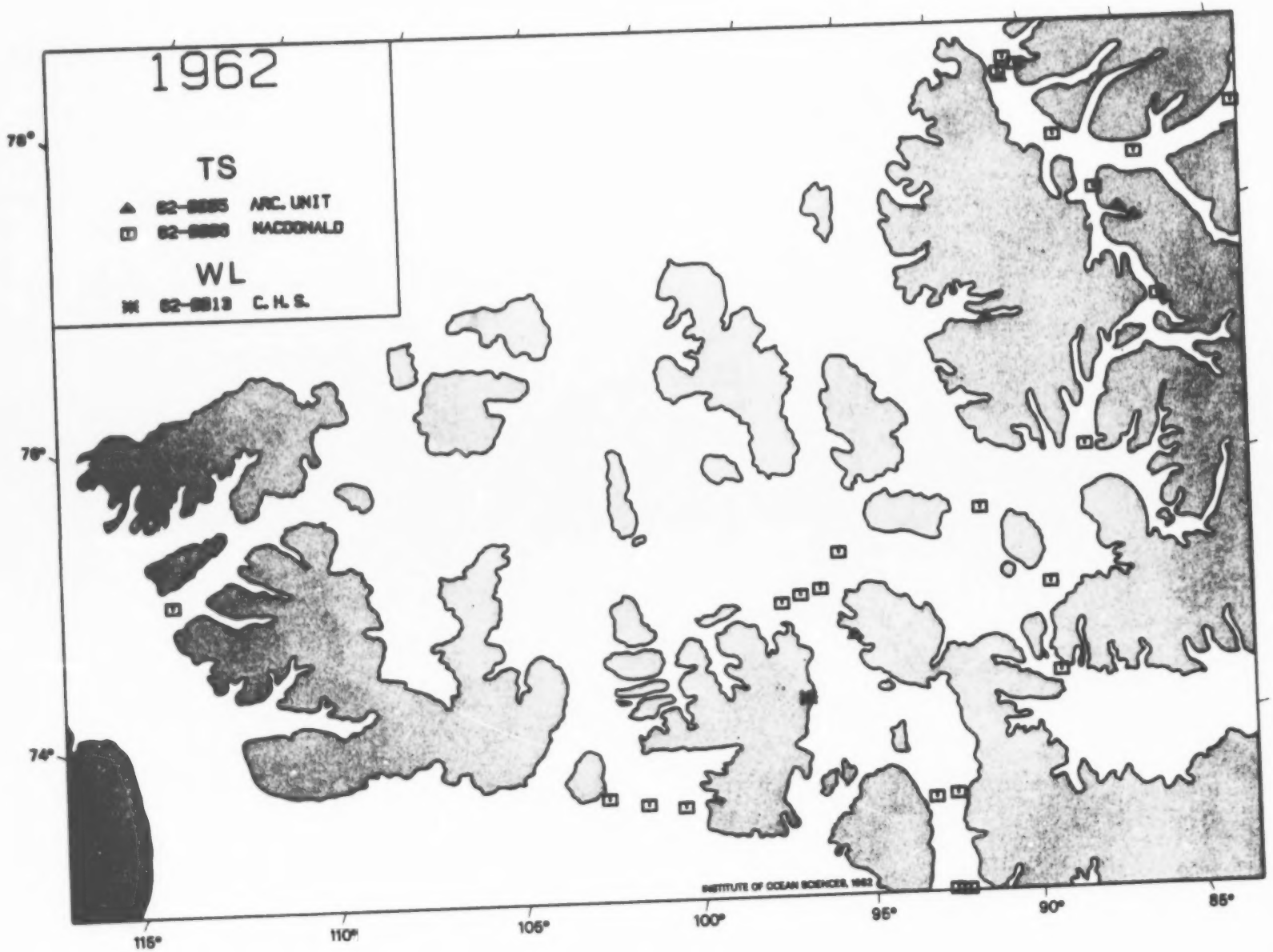

82°
81°
80°
79°
1958
WL
54-8818 C.H.S.
98°
94°
92°
90°
88°
86°
84°

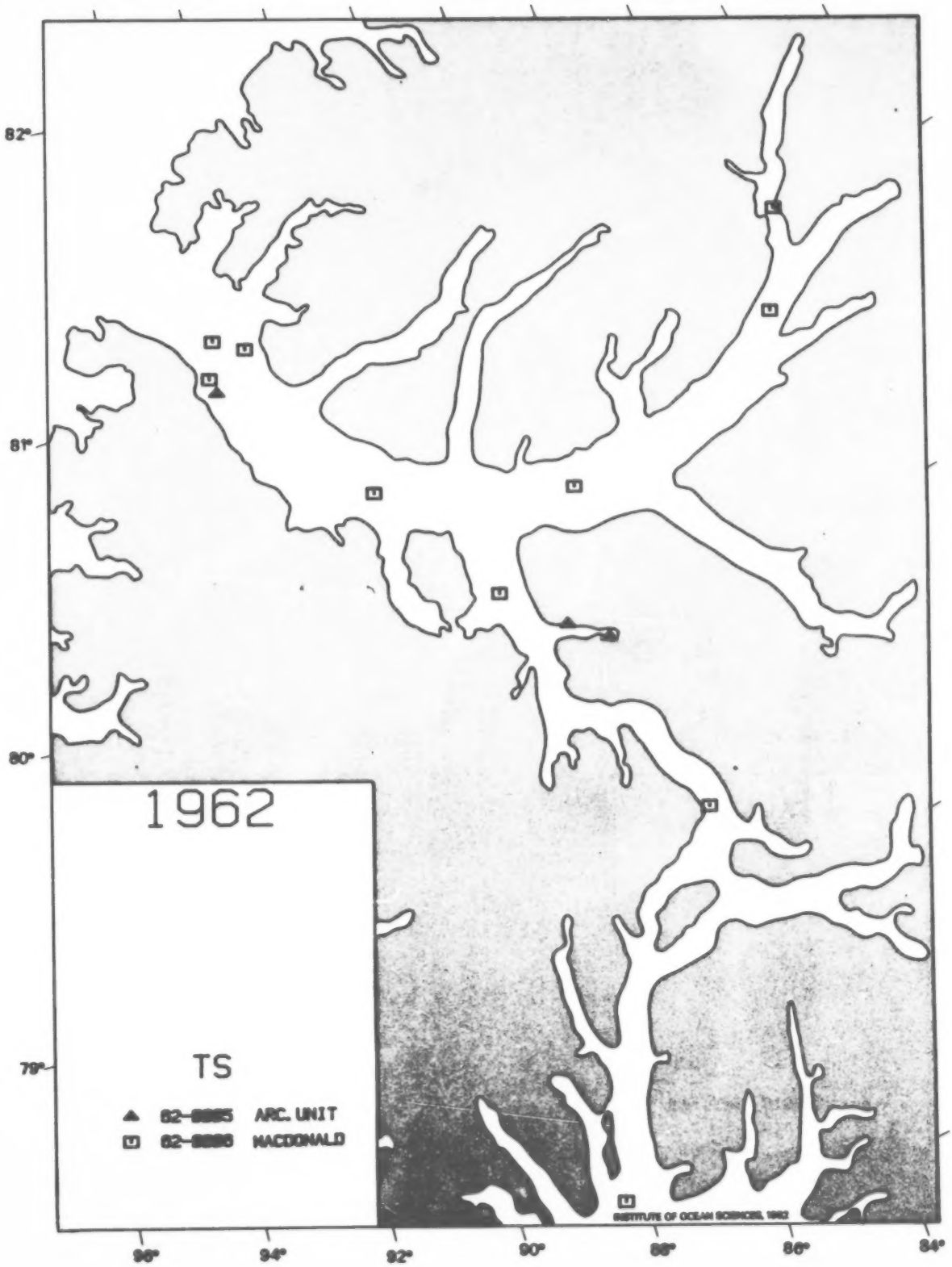

1959
WL
C.H.S.
78°
76°
74°
85°
90°
95°
100°
105°
110°
115°

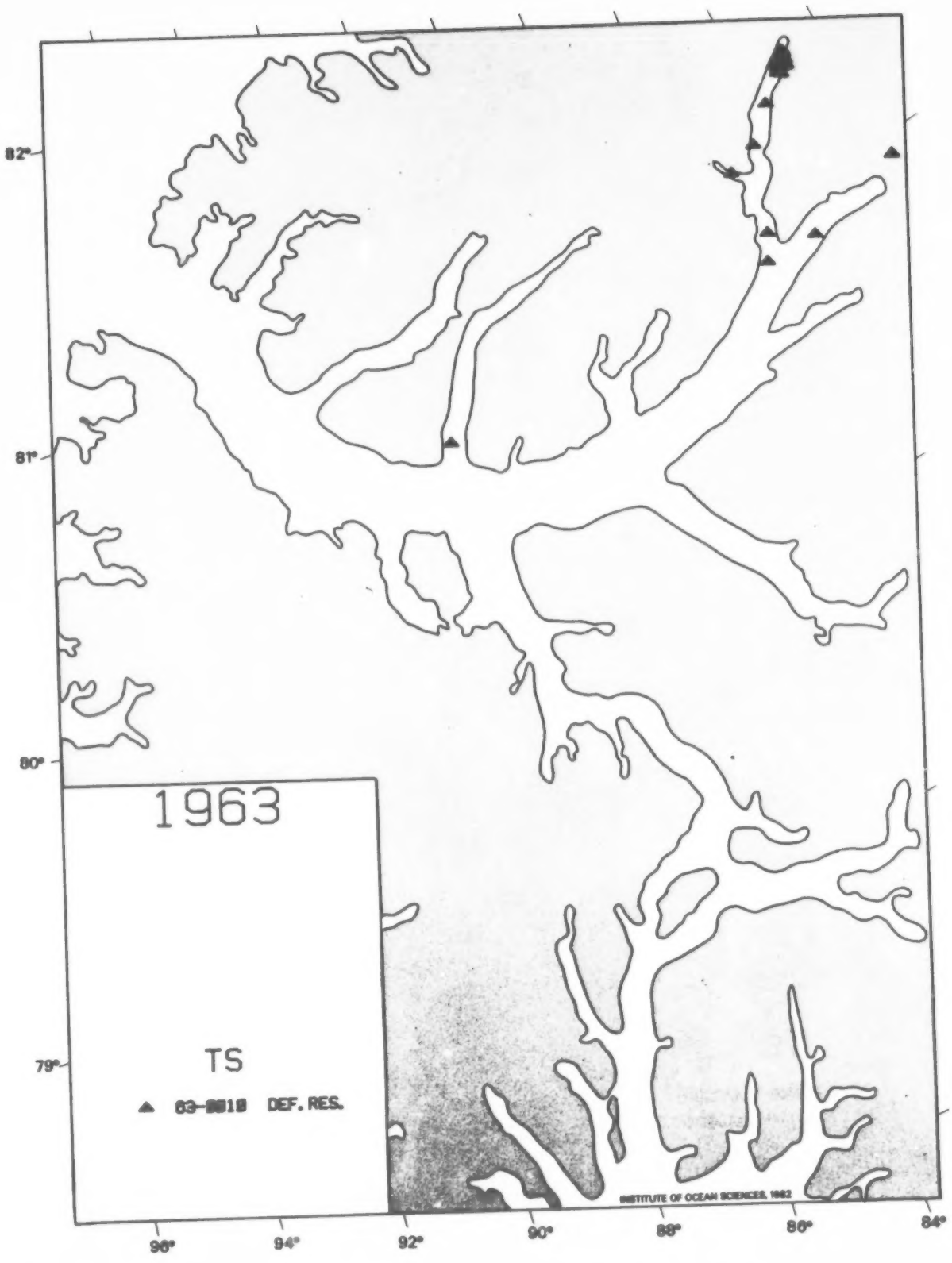

1960
TS
LABRADOR
POLR SHL
78°
76°
74°
116°
110°
105°
100°
95°
90°
85°

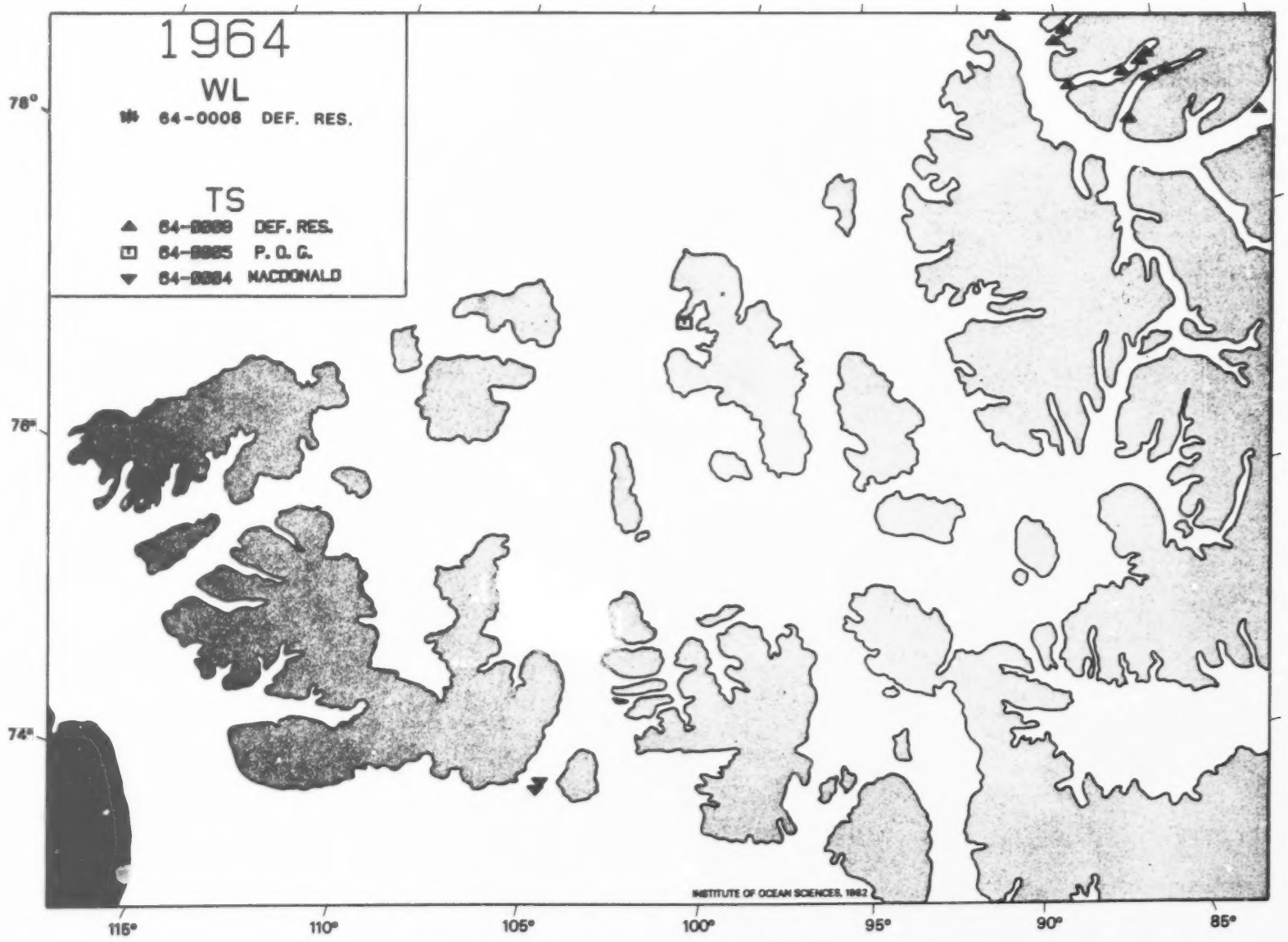

1961
TS
61-0003 P. D. C.
61-0004 LABRADOR
61-0003 MACDONALD
61-0005 POLR SH.
78°
76°
74°
118°
110°
105°
100°
95°
90°
85°
INSTITUTE OF OCEAN SCIENCES, 1982

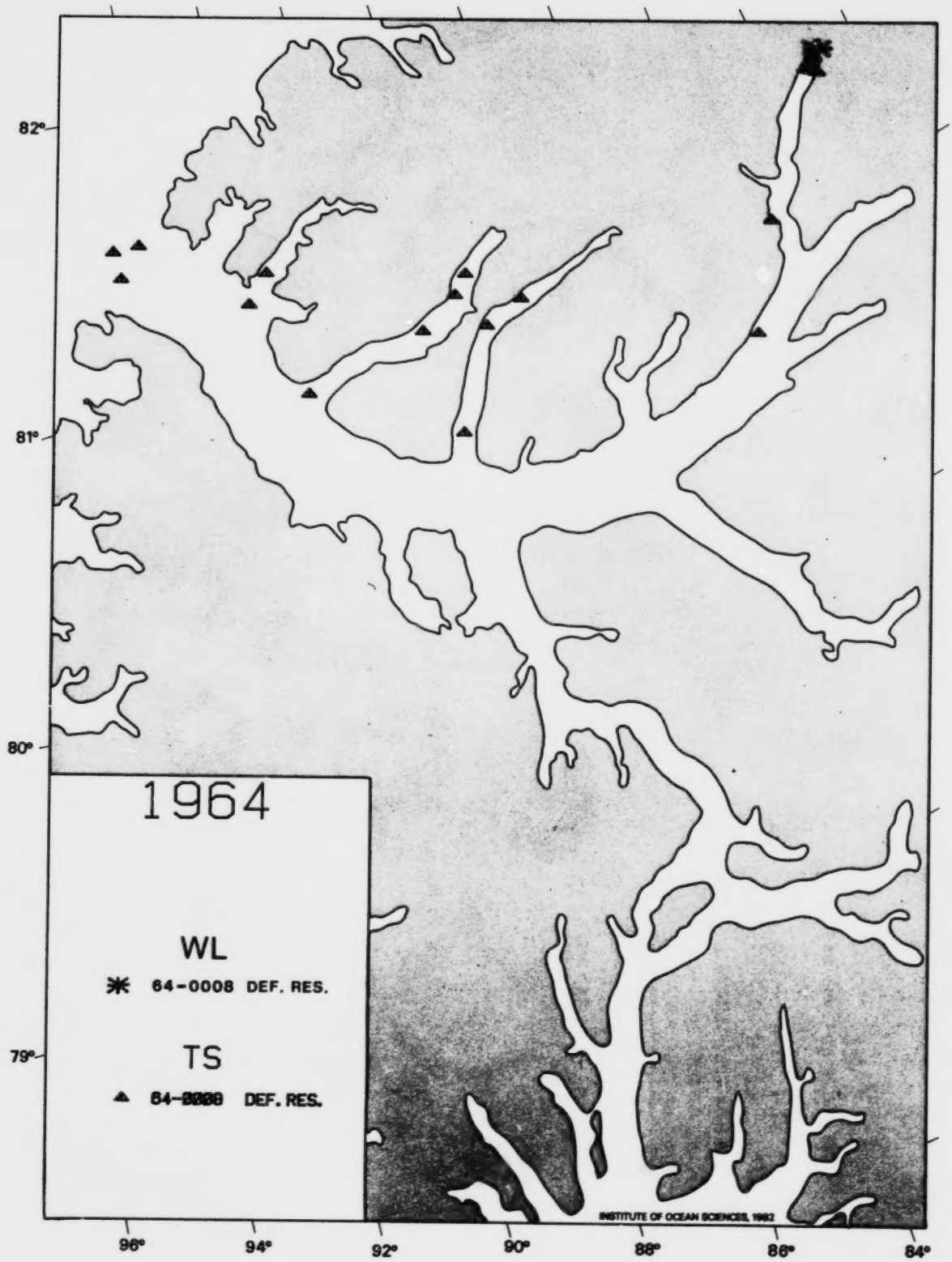

82°
81°
80°
79°
1961
TS
▲ 61-0003 MACDONALD
□ 61-0005 POLR SYL
INSTITUTE OF OCEAN SCIENCES, 1985
96°
94°
92°
90°
88°
86°
84°

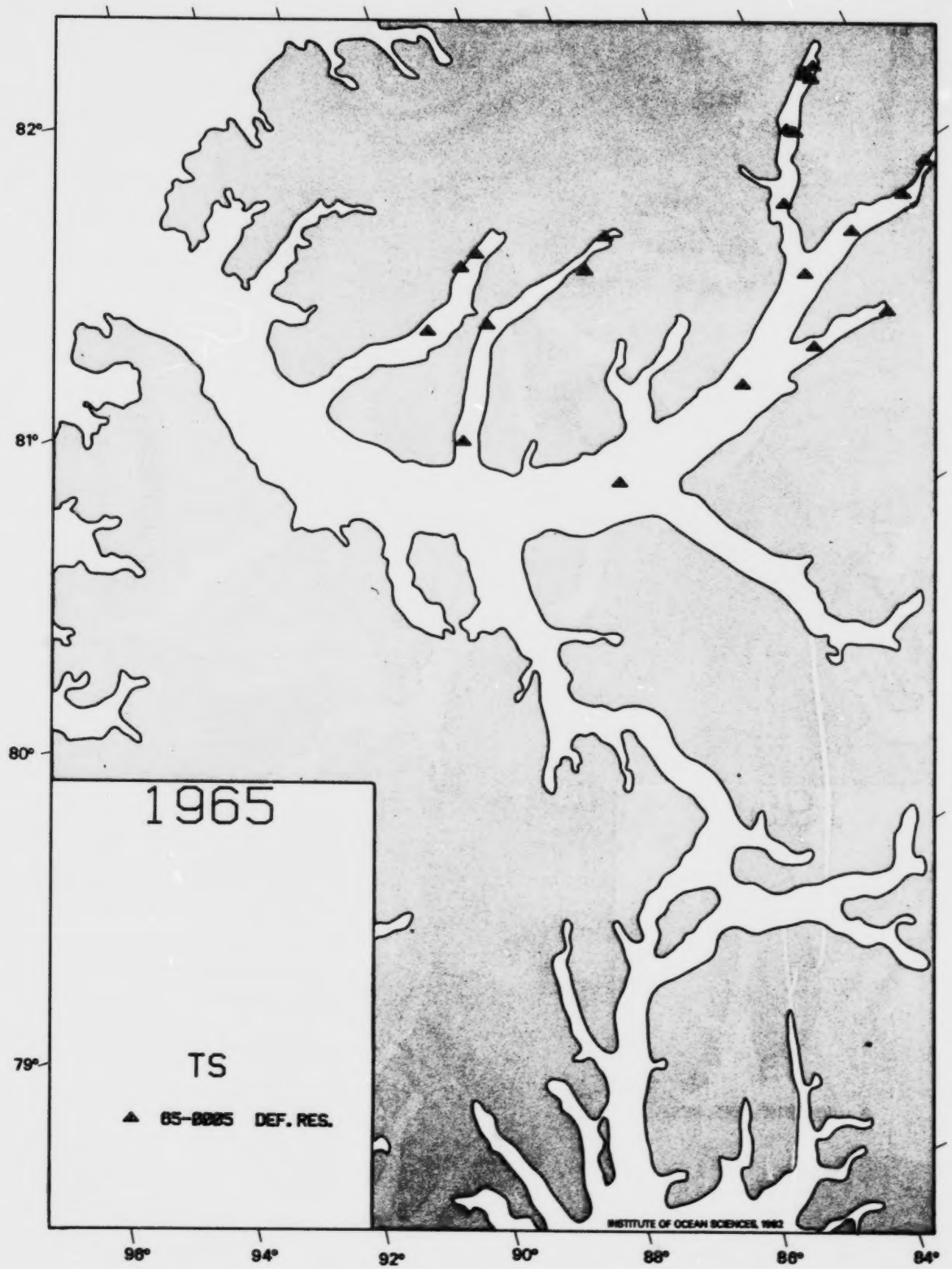

1962
TS
ARC. UNIT
MACDONALD
WL
C. H. S.
INSTITUTE OF OCEAN SCIENCES, 1962
78°
76°
74°
115°
110°
105°
100°
95°
90°
85°

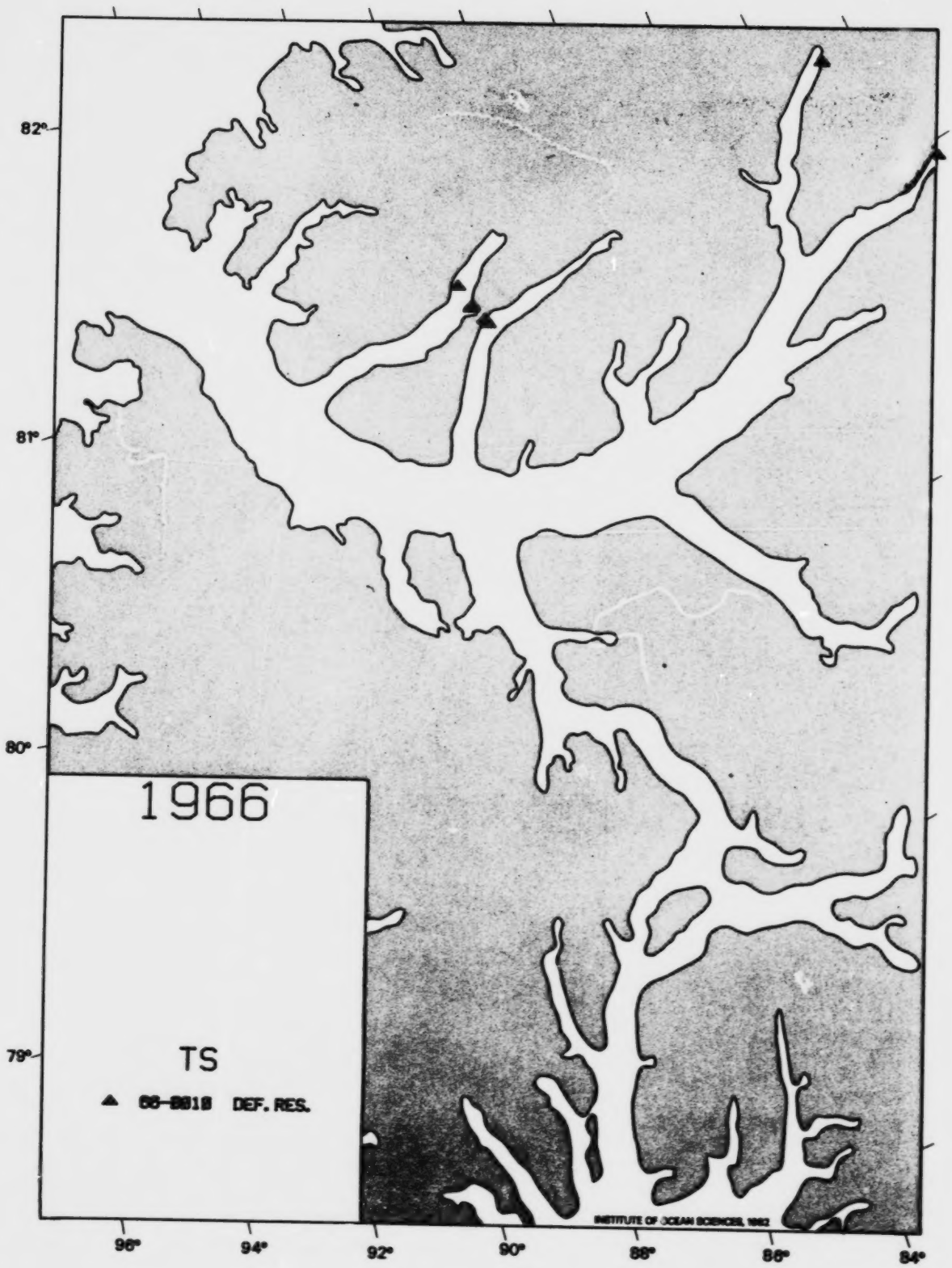

82°
81°
80°
79°
1962
TS
▲ 62-0005 ARC. UNIT
62-0006 MACDONALD
INSTITUTE OF OCEAN SCIENCES, 1962
96°
94°
92°
90°
88°
86°
84°

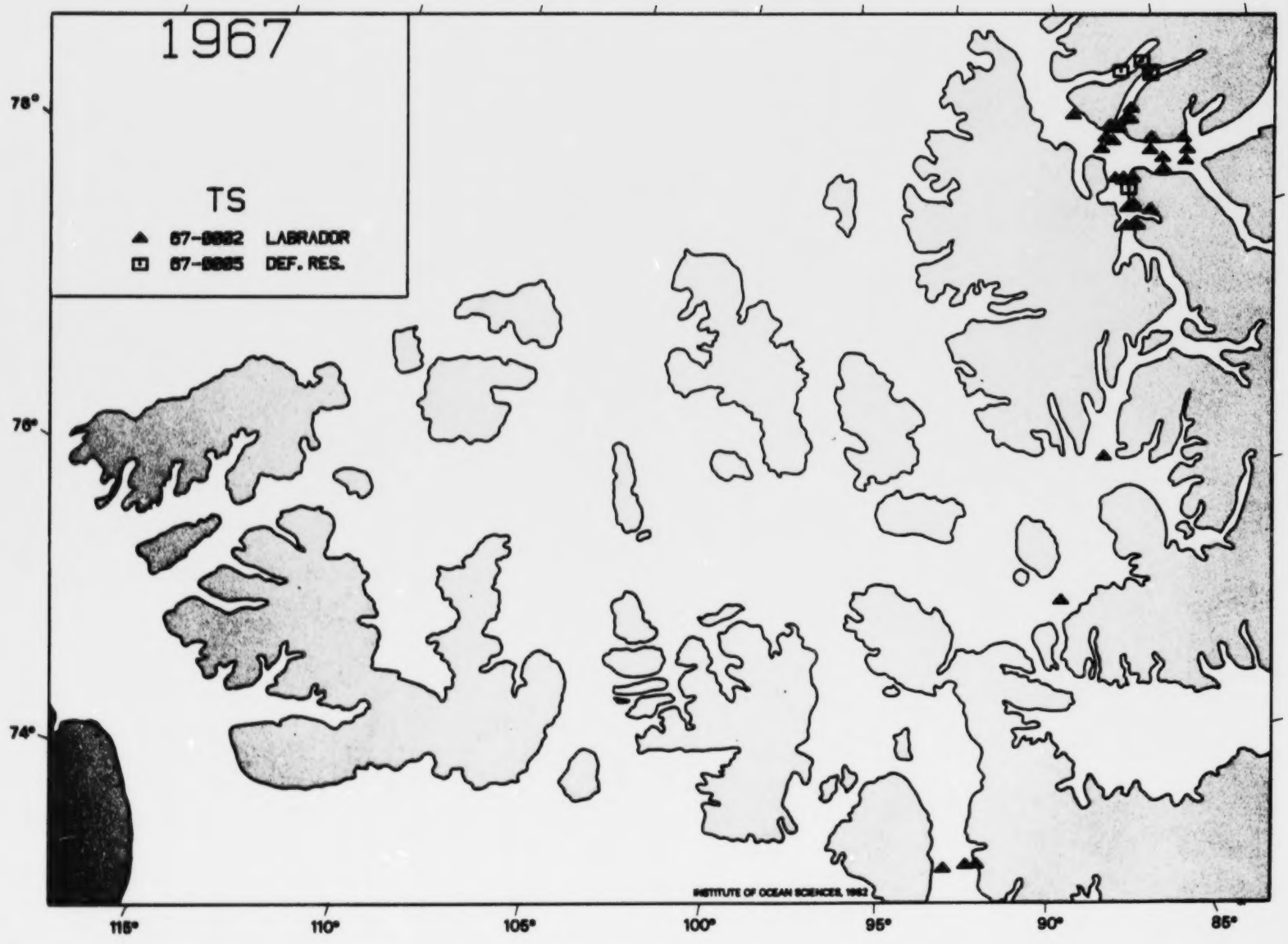

82°
81°
80°
79°
1963
TS
▲ 63-0818 DEF. RES.
INSTITUTE OF OCEAN SCIENCES, 1982
96°
94°
92°
90°
88°
86°
84°

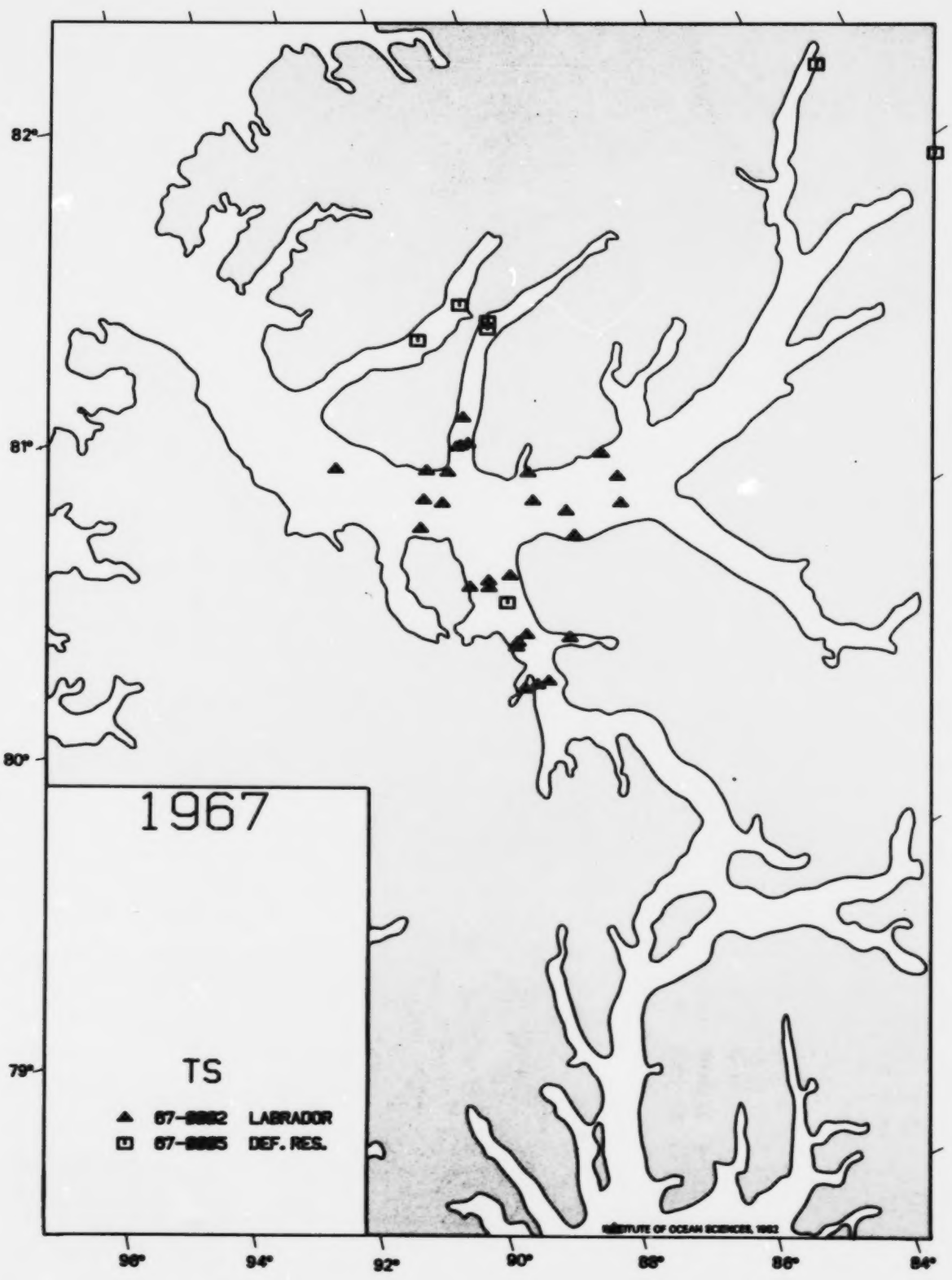

1964
WL
64-0008 DEF. RES.
TS
64-0000 DEF. RES.
64-0005 P. Q. G.
64-0004 MACDONALD
78°
76°
74°
115°
110°
105°
100°
95°
90°
85°
INSTITUTE OF OCEAN SCIENCES, 1982

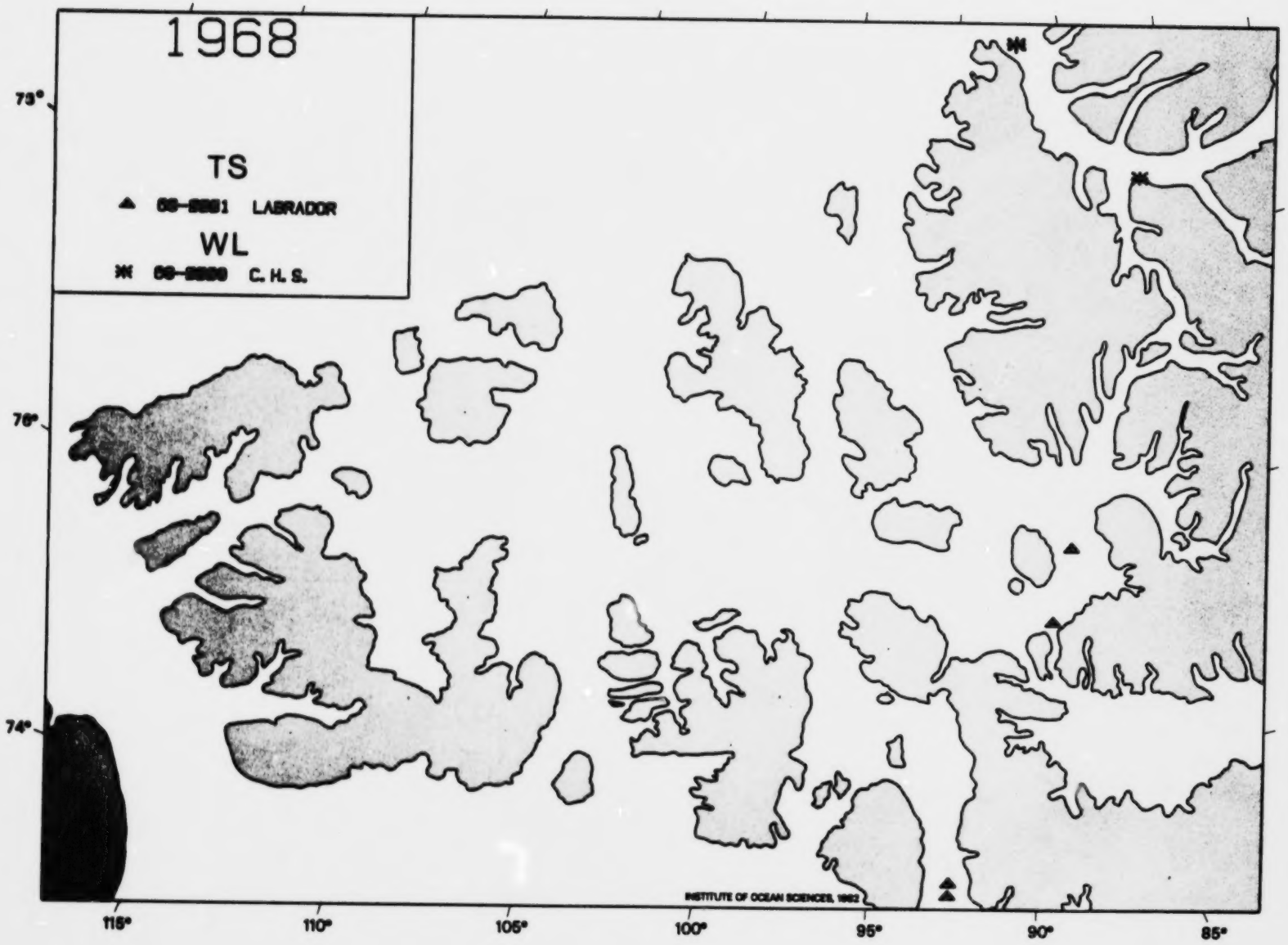

82°
81°
80°
79°
96°
94°
92°
90°
88°
86°
84°
1964
WL
64-0008 DEF. RES.
TS
64-0000 DEF. RES.
INSTITUTE OF OCEAN SCIENCES, 1982

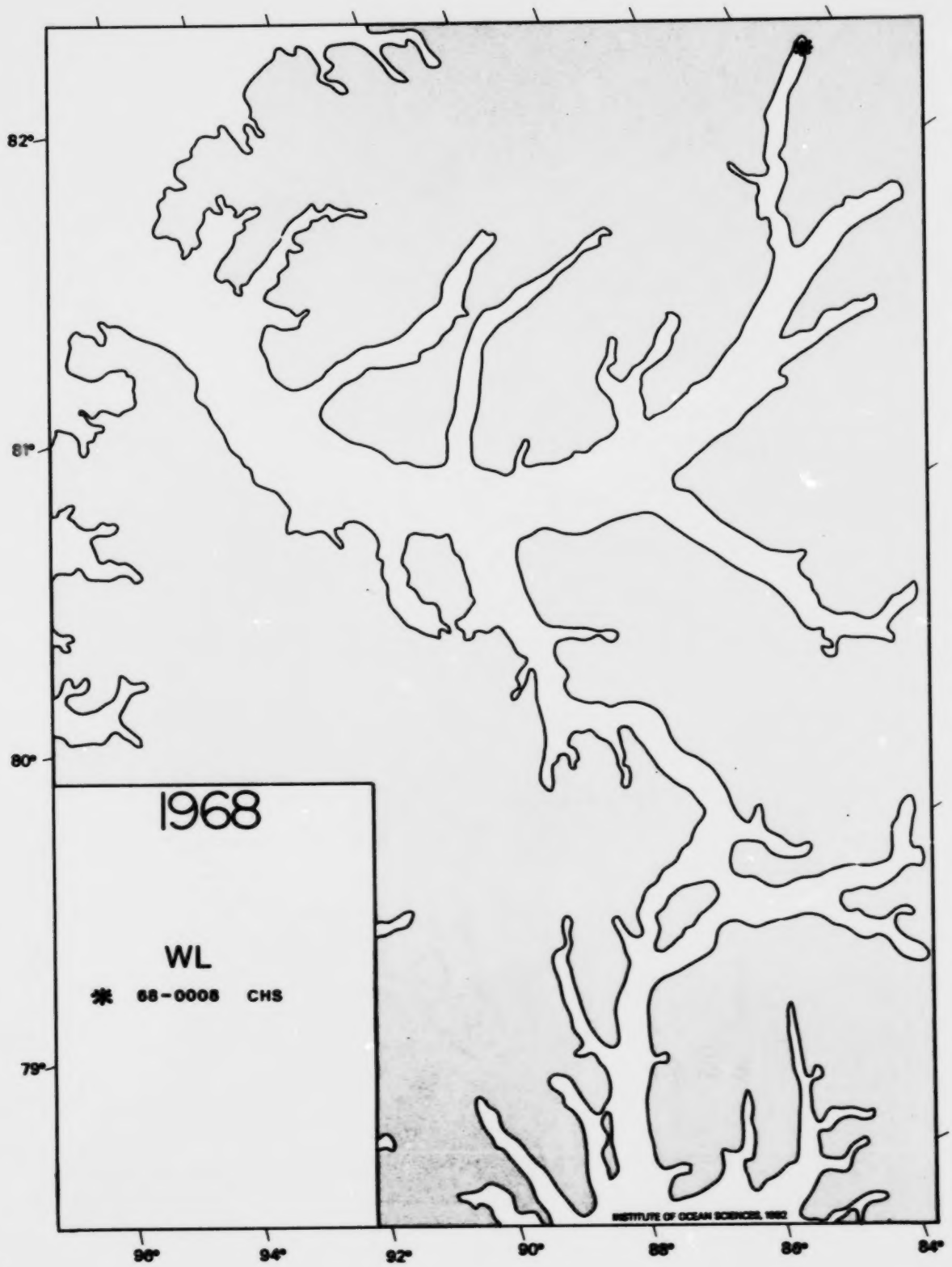

82°
81°
80°
79°
1965
TS
▲ 85-0005 DEF. RES.
INSTITUTE OF OCEAN SCIENCES, 1982
98°
94°
92°
90°
88°
86°
84°

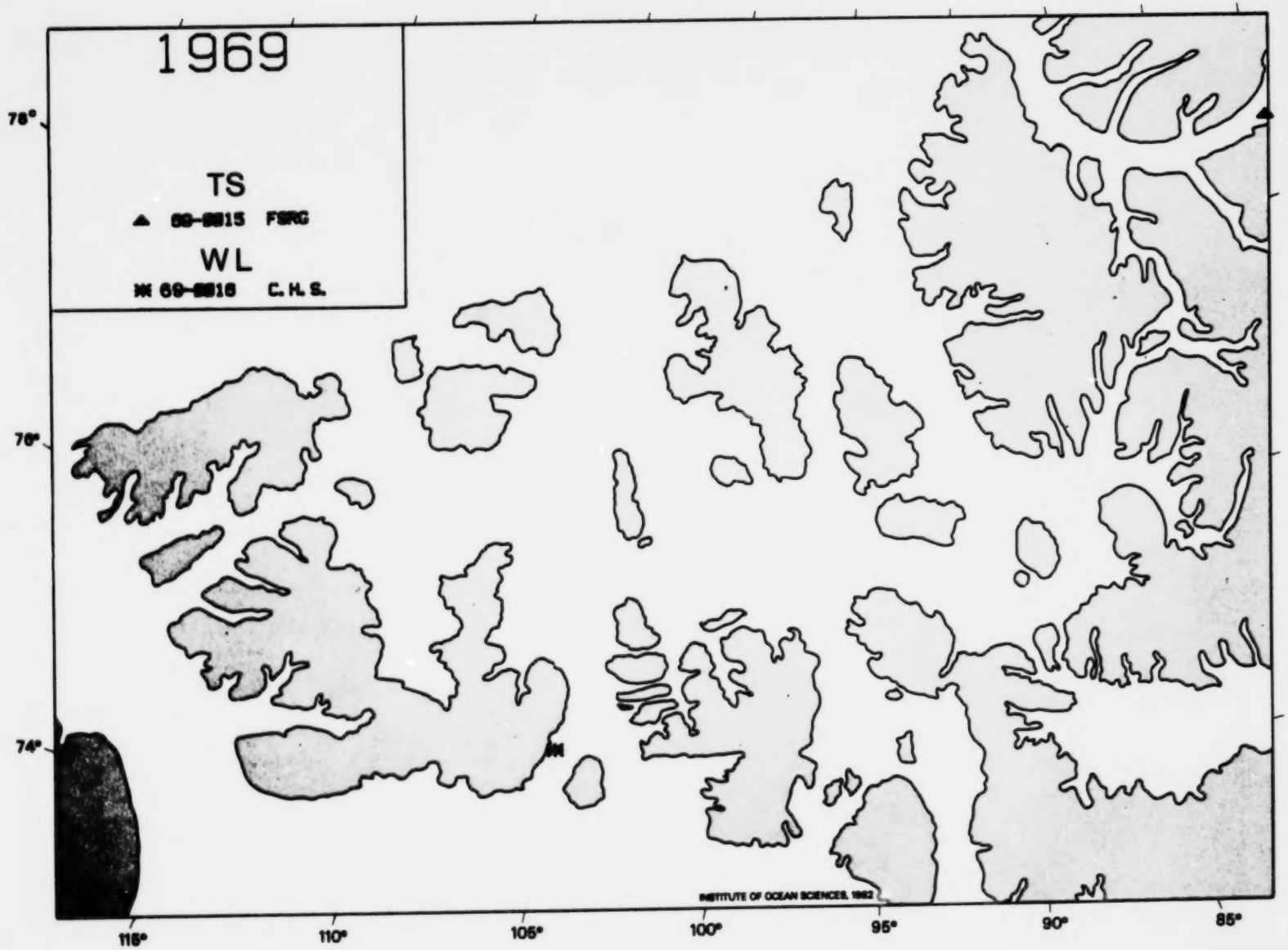

82°
81°
80°
79°
1966
TS
▲ 66-8818 DEF. RES.
INSTITUTE OF OCEAN SCIENCES, 1982
96°
94°
92°
90°
88°
86°
84°

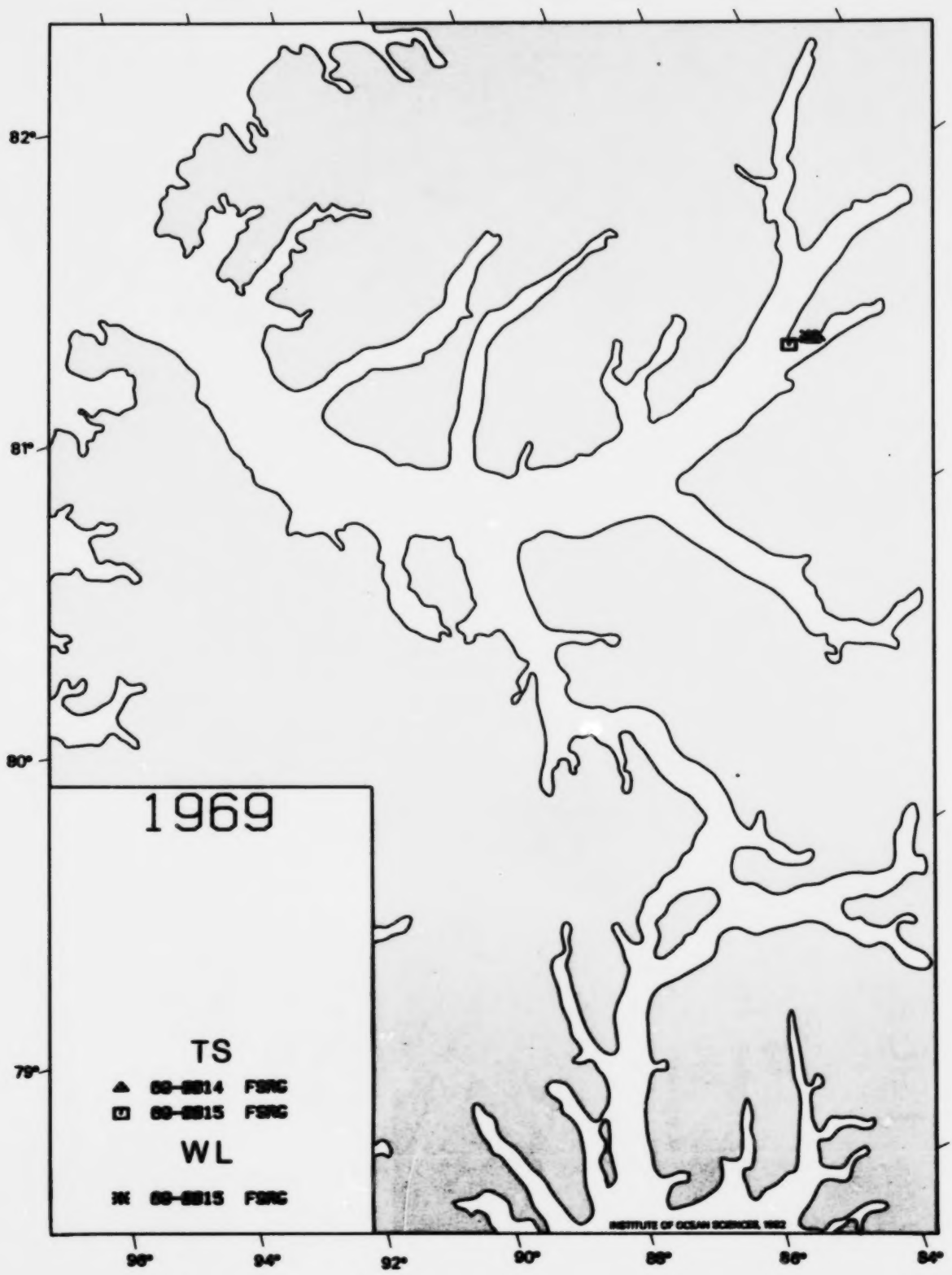

1967
TS
▲ 67-0002 LABRADOR
⊡ 67-0005 DEF. RES.
78°
76°
74°
115°
110°
105°
100°
95°
90°
85°
INSTITUTE OF OCEAN SCIENCES, 1982

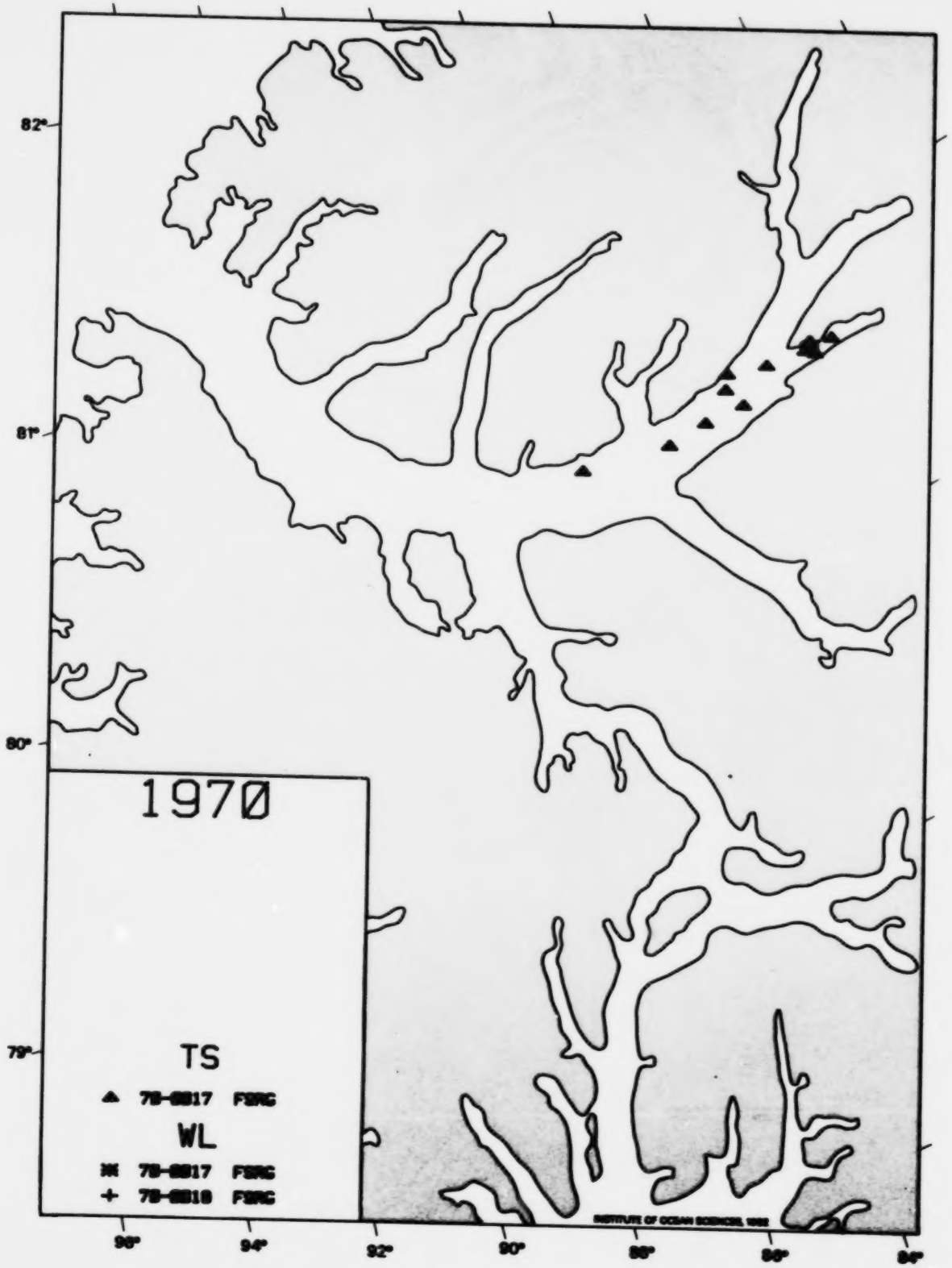

82°
81°
80°
79°
1967
TS
67-0002 LABRADOR
67-0005 DEF. RES.
98°
94°
92°
90°
88°
86°
84°

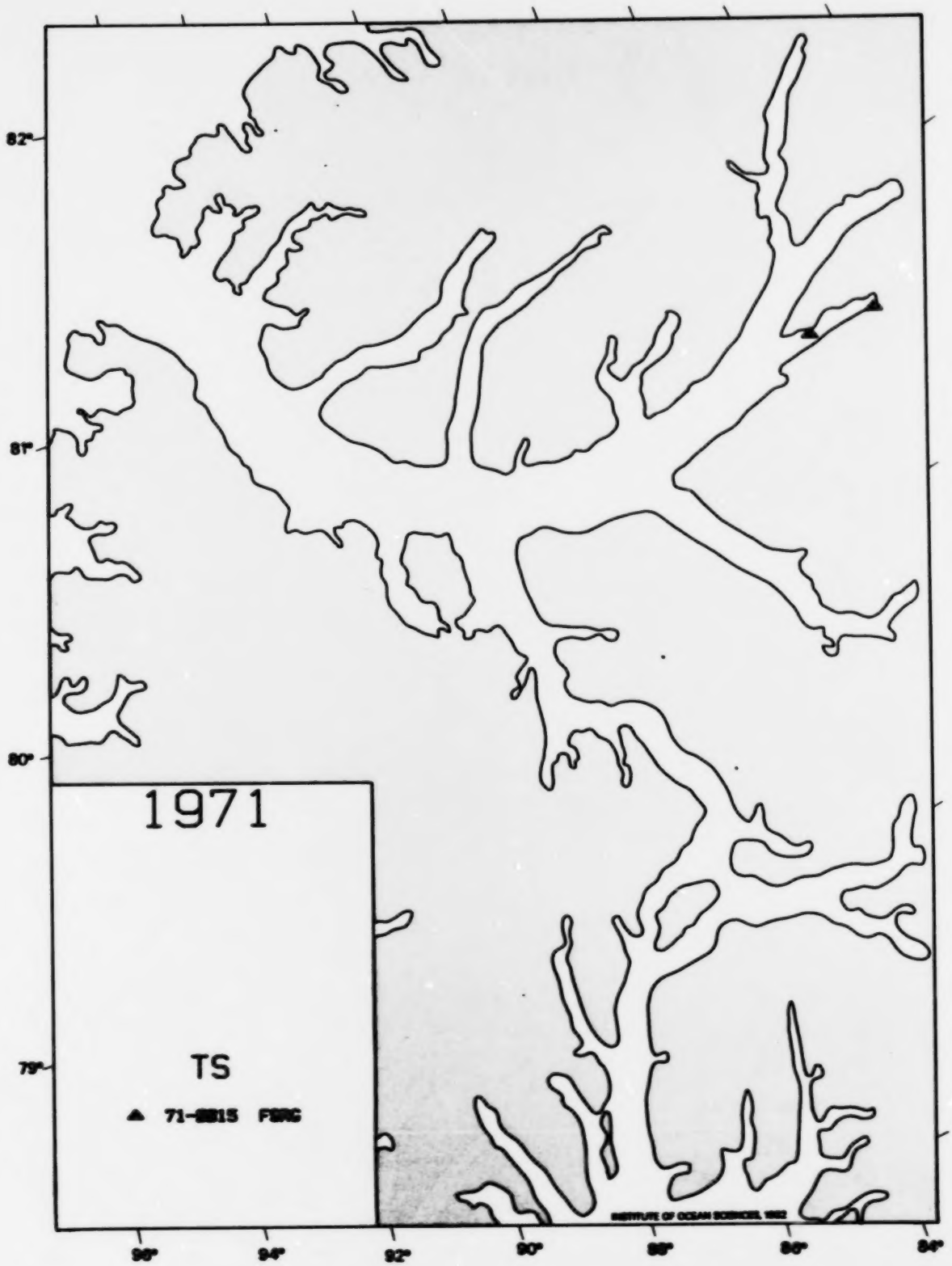

1968
TS
▲ 68-6661 LABRADOR
WL
68-6666 C.H.S.
73°
76°
74°
115°
110°
105°
100°
95°
90°
85°
INSTITUTE OF OCEAN SCIENCES, 1982

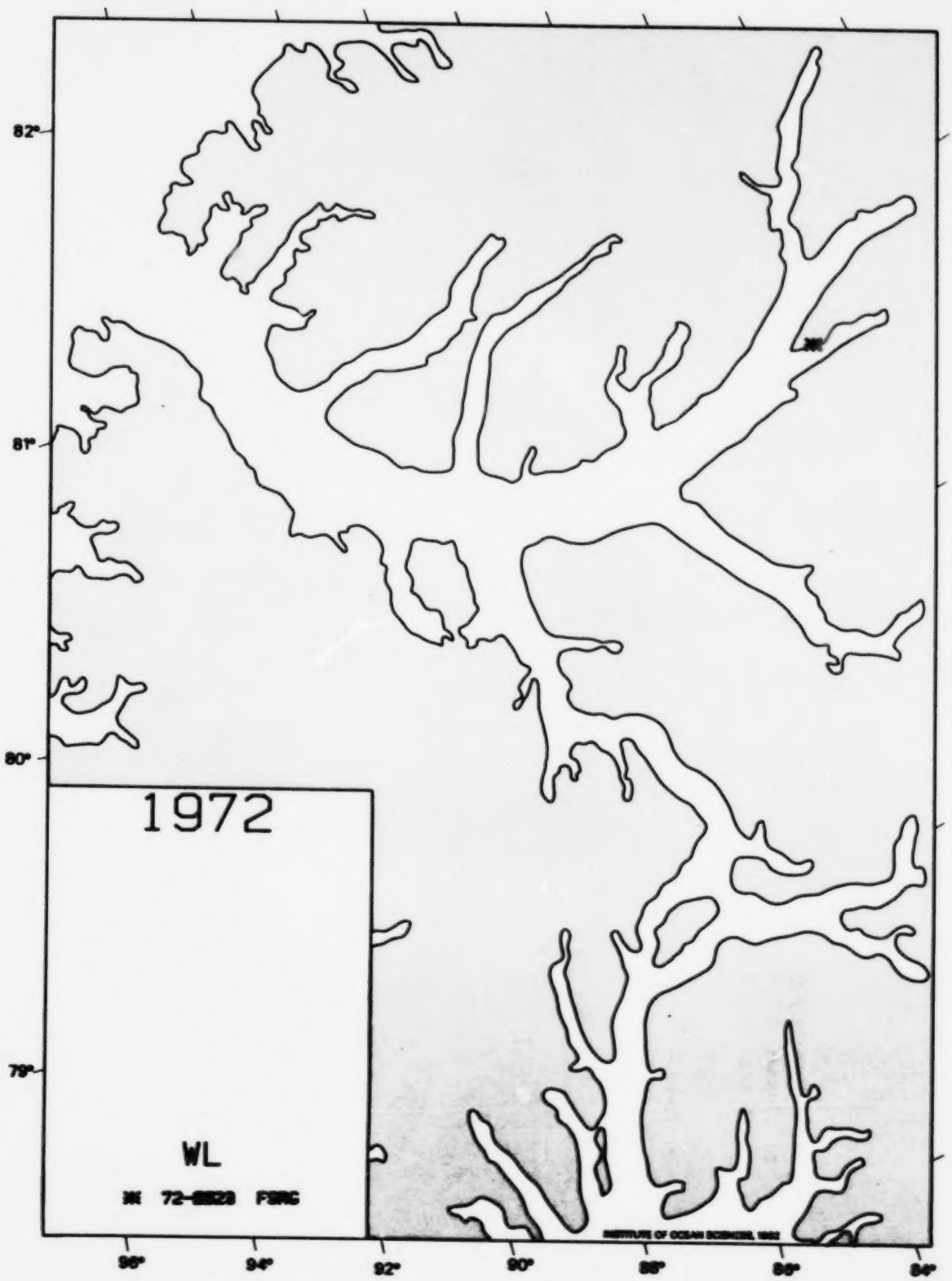

82°
81°
80°
79°
96°
94°
92°
90°
88°
86°
84°
1968
WL
68-0008 CHS
INSTITUTE OF OCEAN SCIENCES, 1980

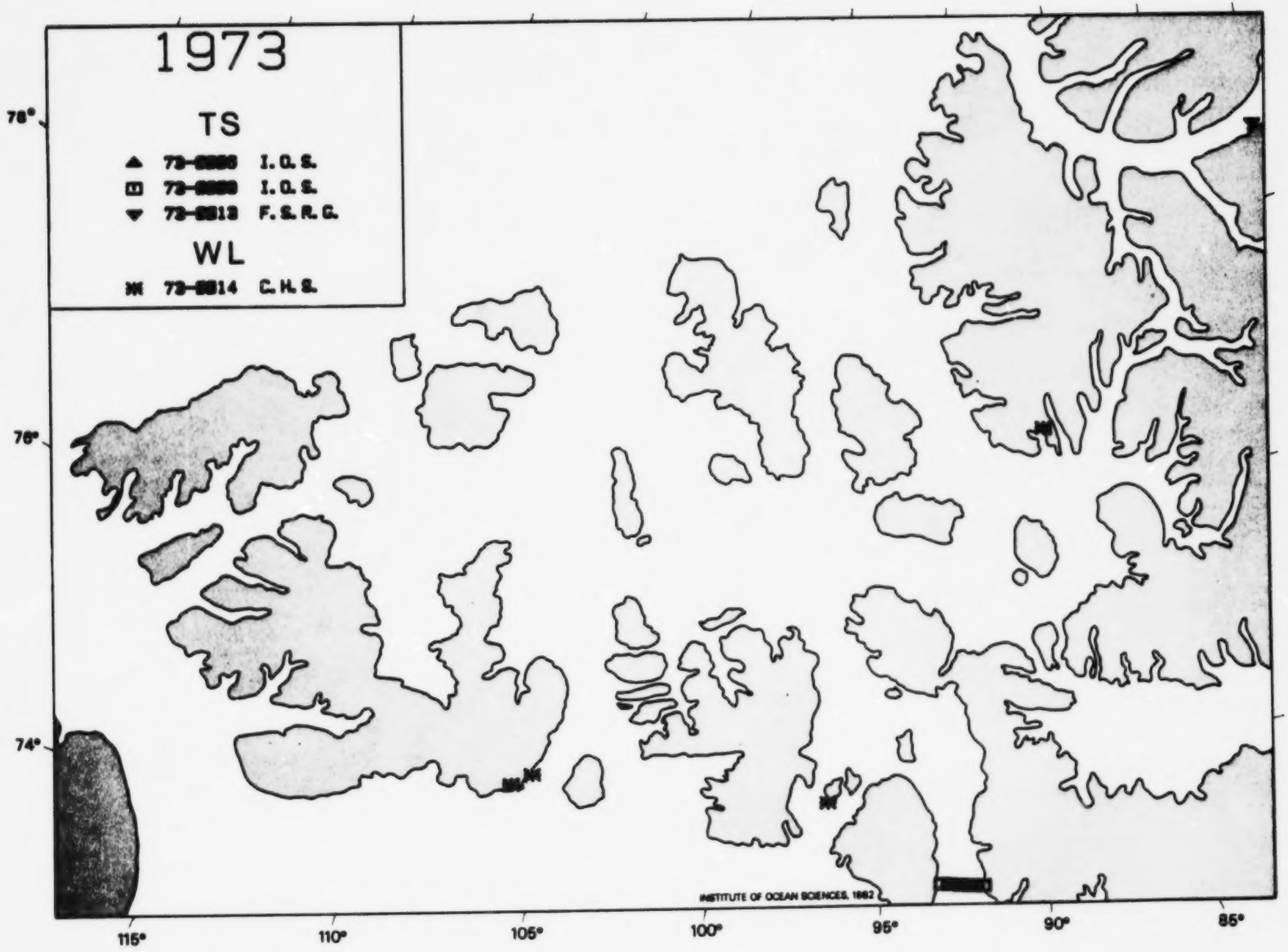

1969
TS
▲ 69-0015 FSRC
WL
⋇ 69-0016 C.H.S.
78°
76°
74°
116°
110°
105°
100°
95°
90°
85°
INSTITUTE OF OCEAN SCIENCES, 1982

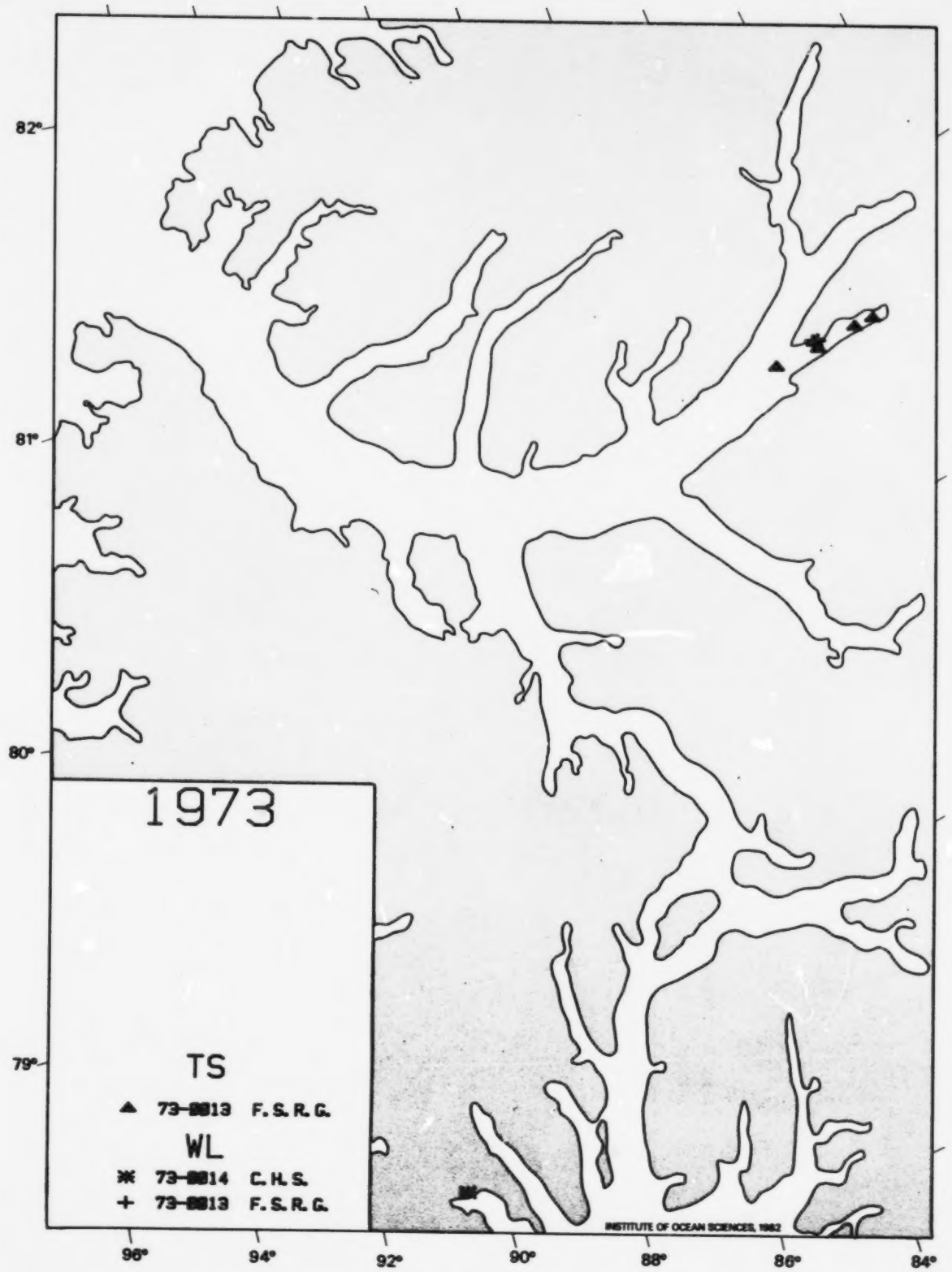

82°
81°
80°
79°
98°
94°
92°
90°
88°
86°
84°
1969
TS
69-0014 FSRG
69-0015 FSRG
WL
69-0015 FSRG
INSTITUTE OF OCEAN SCIENCES, 1982

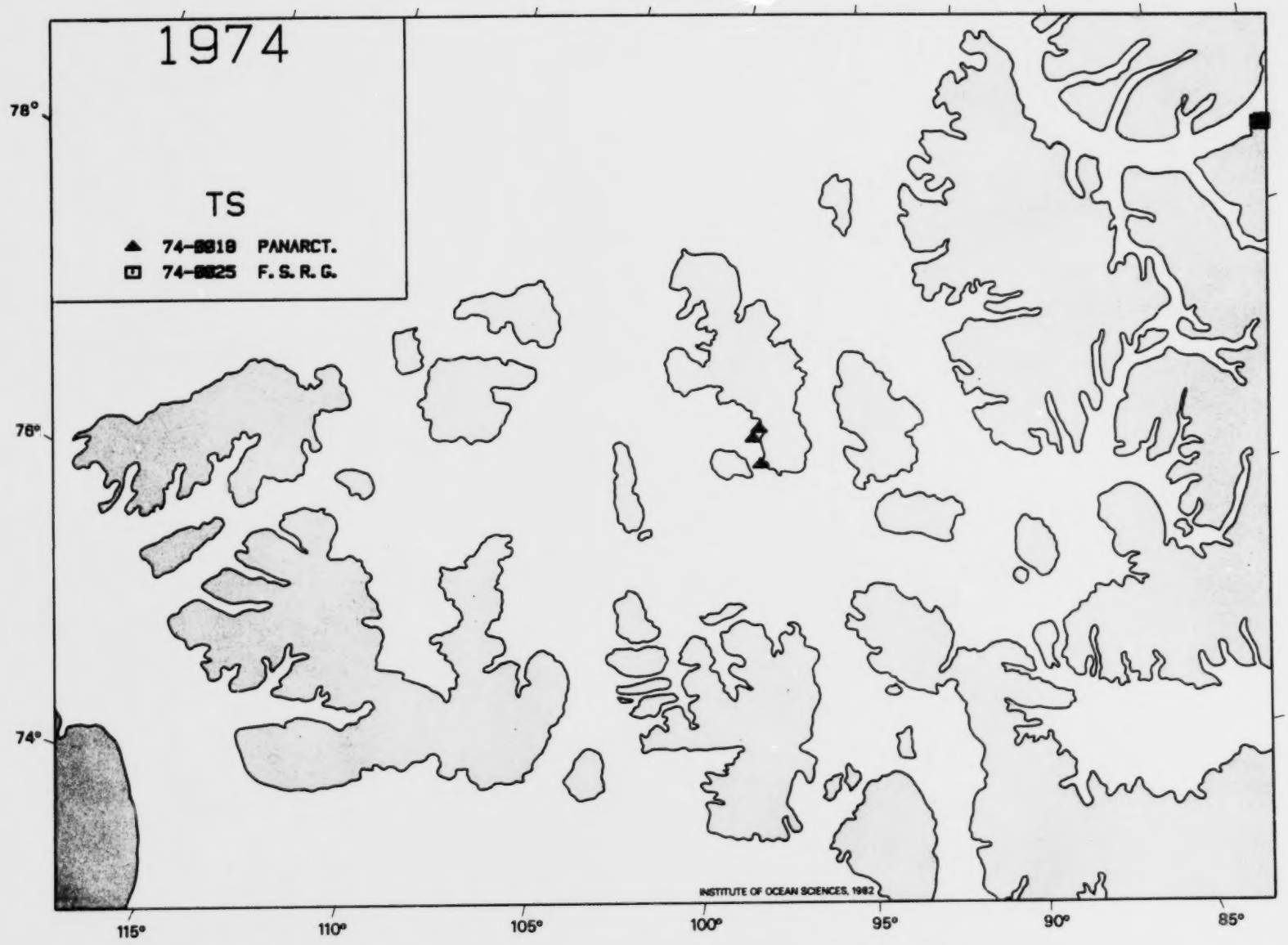

82°
81°
80°
79°
1970
TS
78-6817 FSRG
WL
78-6817 FSRG
78-6818 FSRG
98°
94°
92°
90°
88°
86°
84°

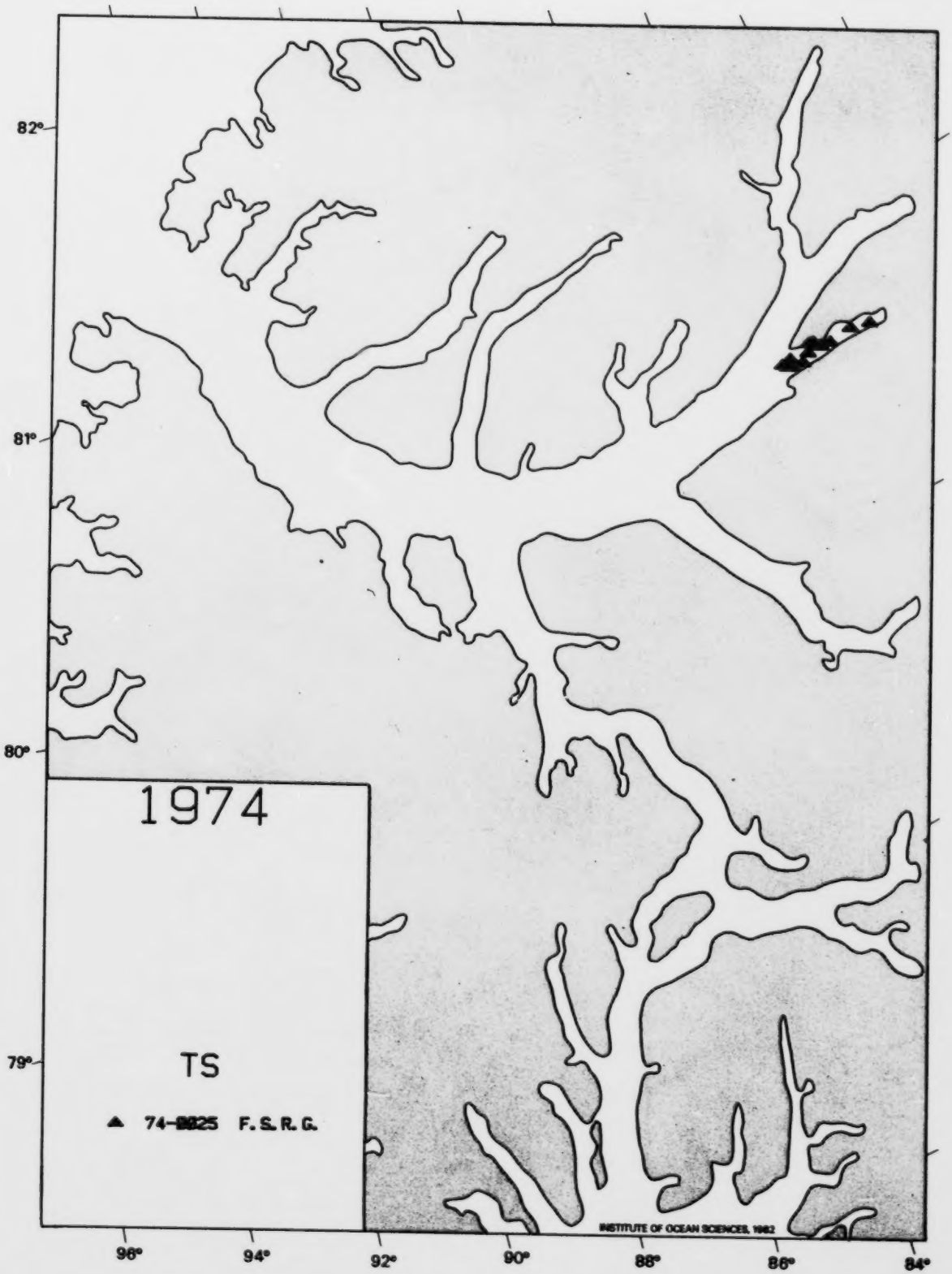

1971
TS
▲ 71-8815 FSRG
82°
81°
80°
79°
98°
94°
92°
90°
88°
86°
84°

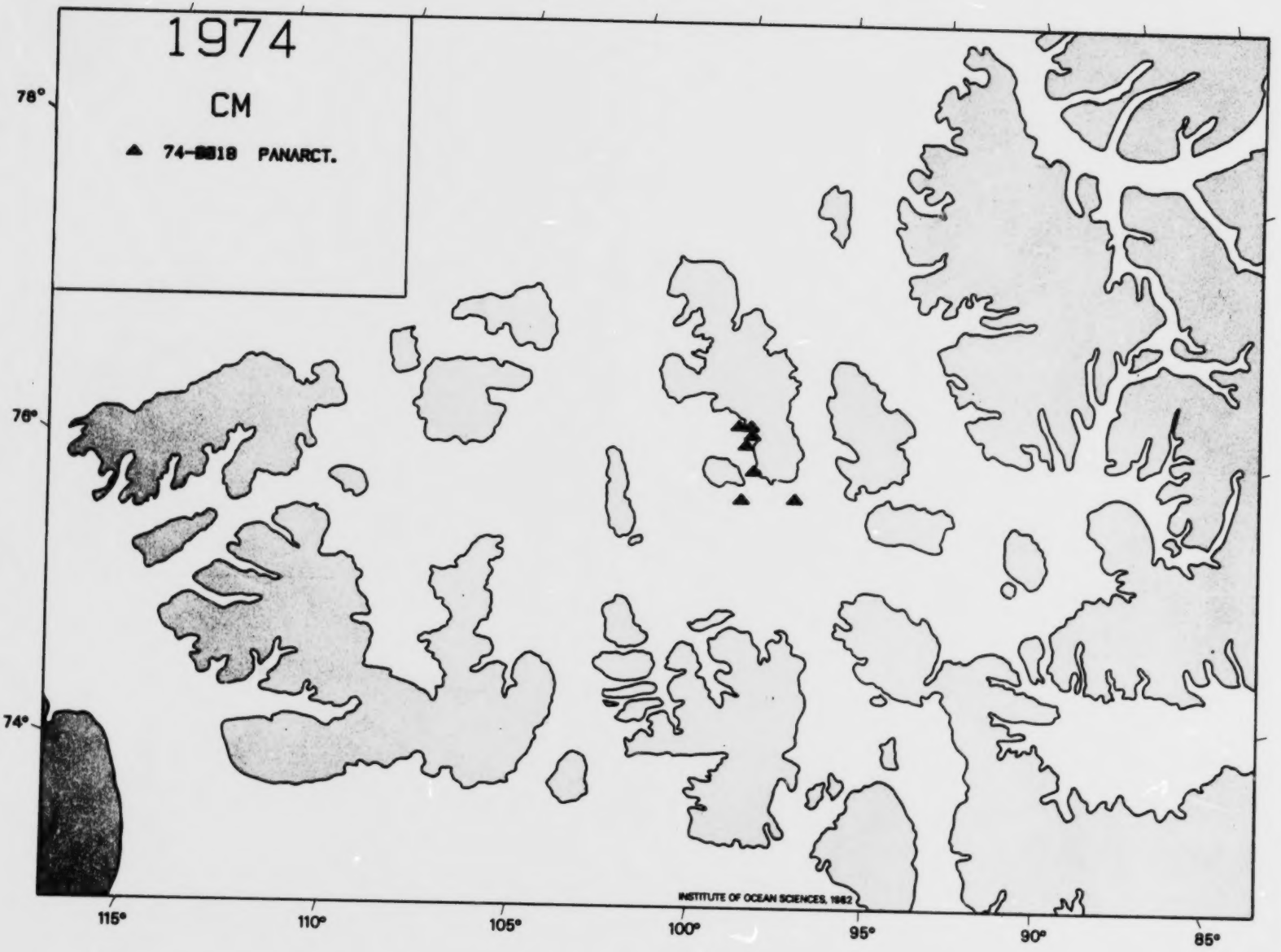

82°
81°
80°
79°
1972
WL
96°
94°
92°
90°
88°
86°
84°

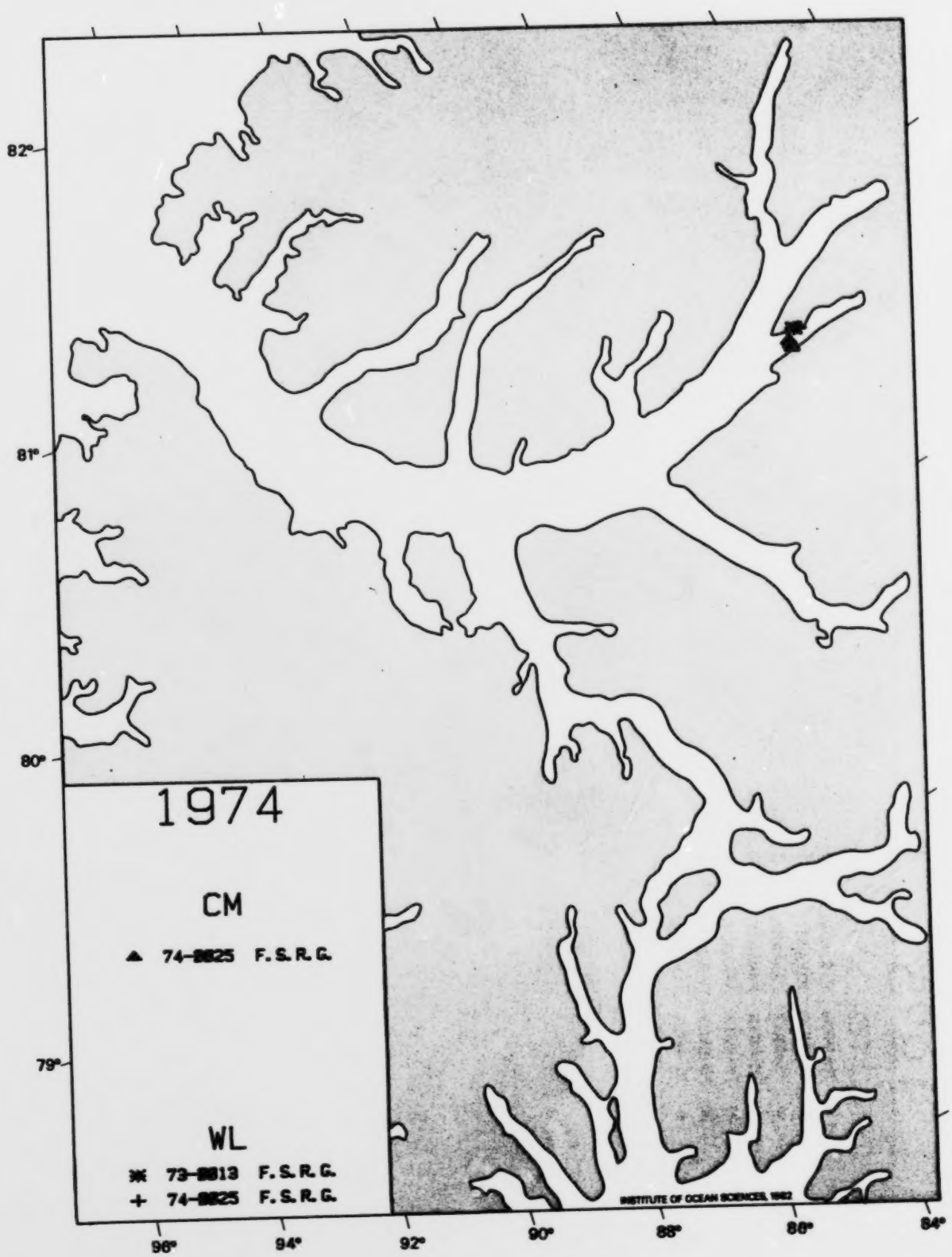

1973
TS
▲ 73-0000 I.O.S.
⊡ 73-0000 I.O.S.
▼ 73-0013 F.S.R.G.
WL
M 73-0014 C.H.S.
78°
76°
74°
115°
110°
105°
100°
95°
90°
85°
INSTITUTE OF OCEAN SCIENCES, 1982

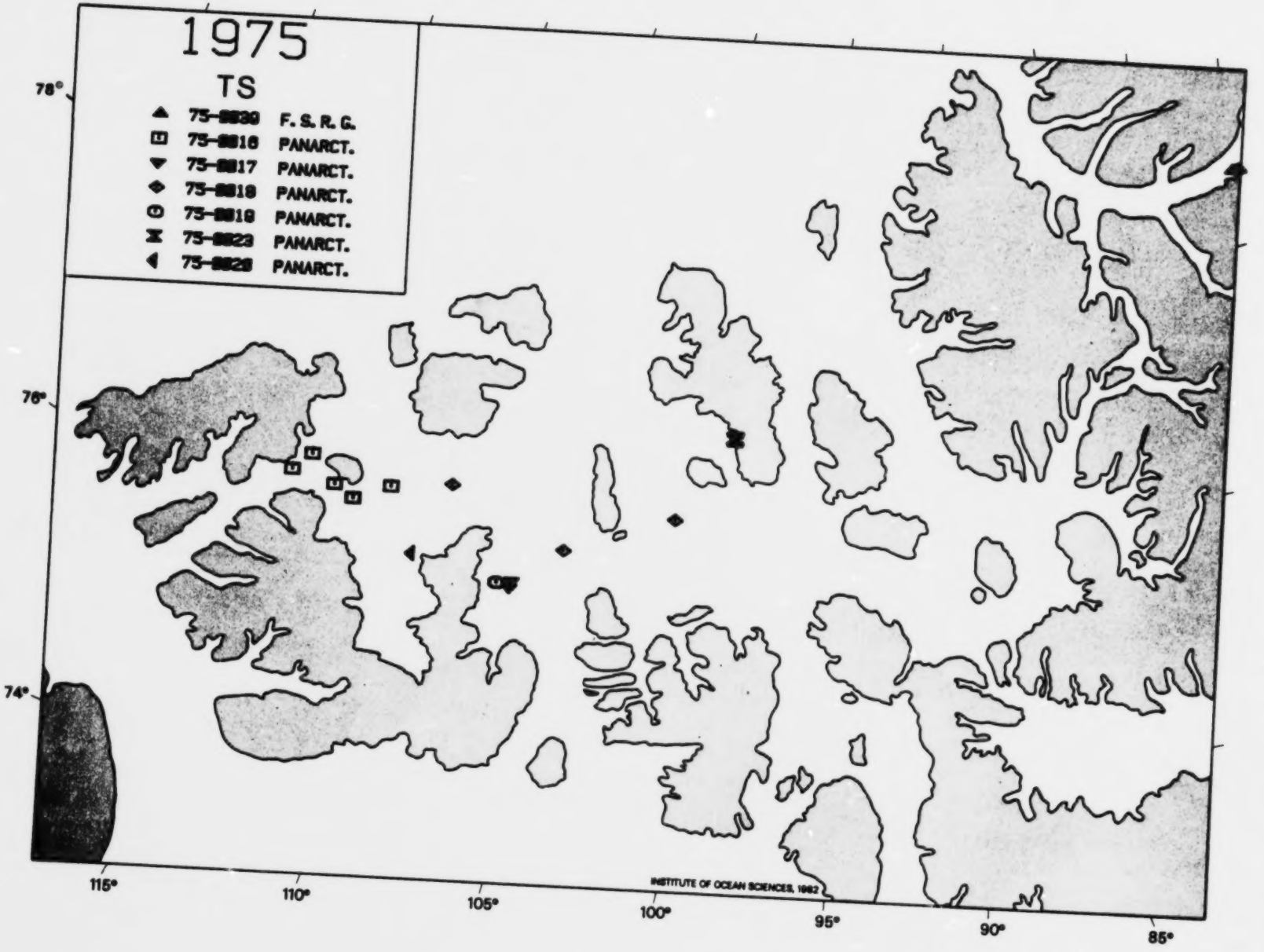

82°
81°
80°
79°
1973
TS
▲ 73-8813 F.S.R.G.
WL
✱ 73-8814 C.H.S.
+ 73-8813 F.S.R.G.
INSTITUTE OF OCEAN SCIENCES, 1982
96°
94°
92°
90°
88°
86°
84°

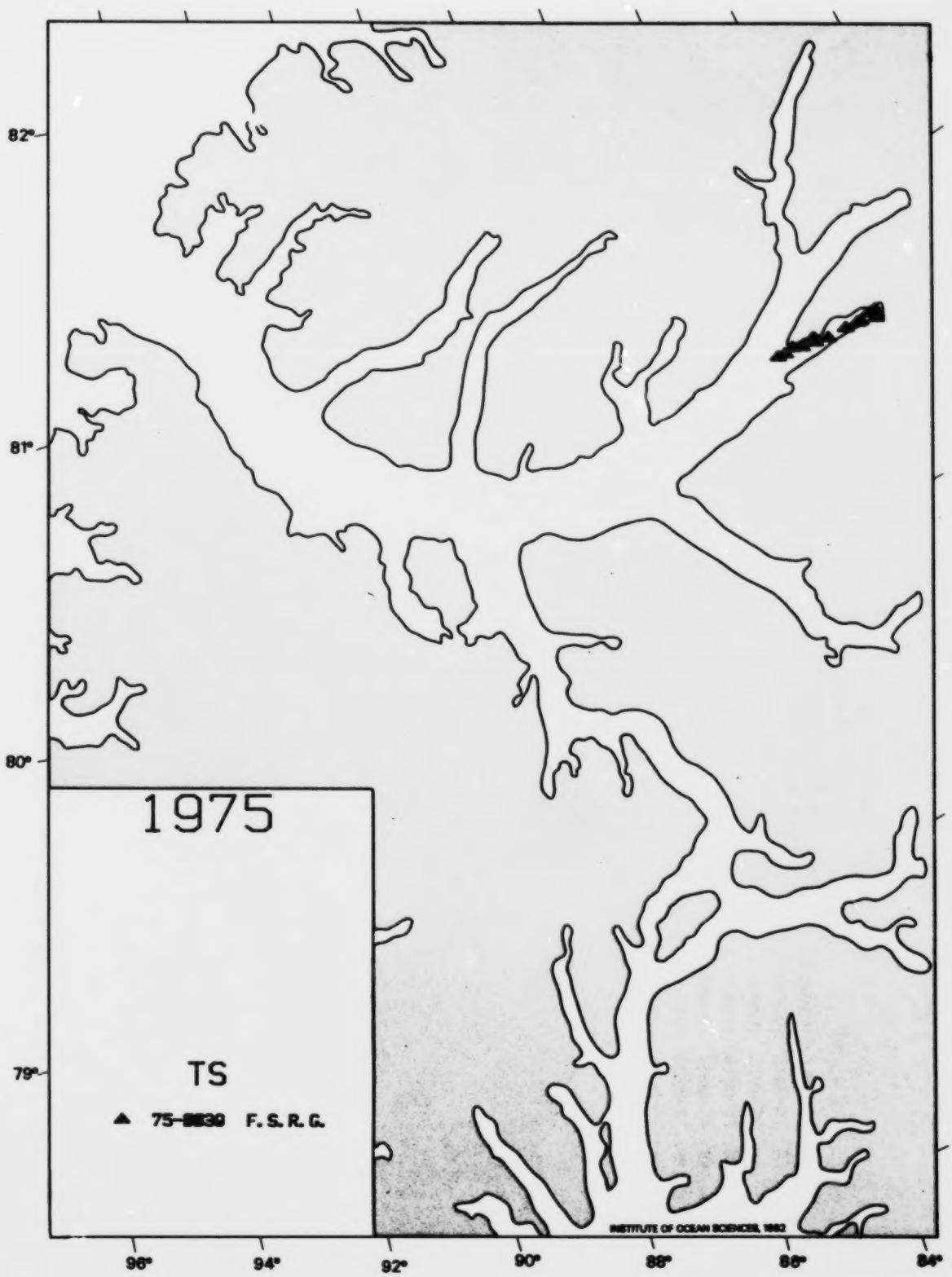

1974
TS
74-0818 PANARCT.
74-0825 F. S. R. G.
78°
76°
74°
115°
110°
105°
100°
95°
90°
85°
INSTITUTE OF OCEAN SCIENCES, 1982

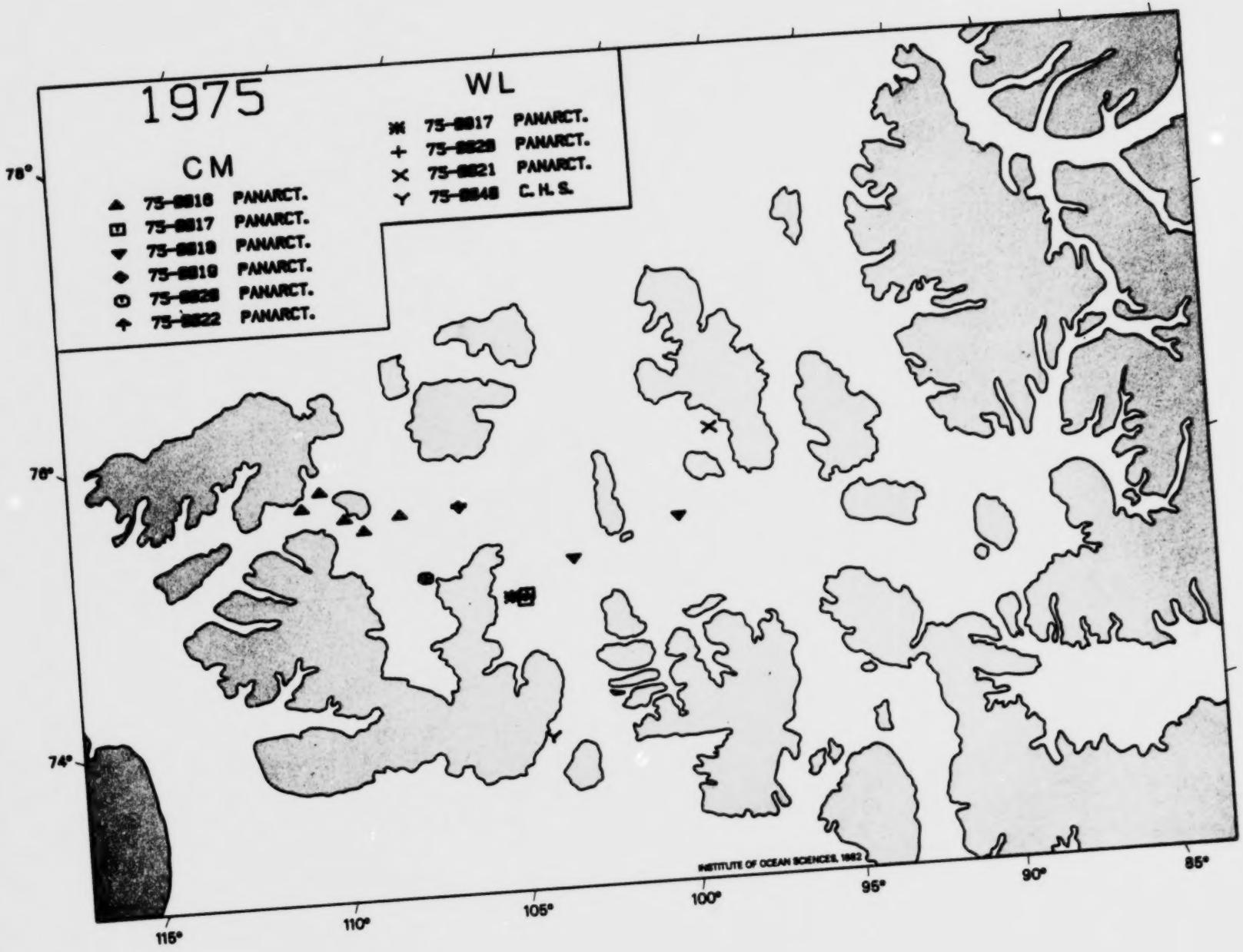

82°
81°
80°
79°
1974
TS
▲ 74-8825 F.S.R.G.
INSTITUTE OF OCEAN SCIENCES, 1982
96°
94°
92°
90°
88°
86°
84°

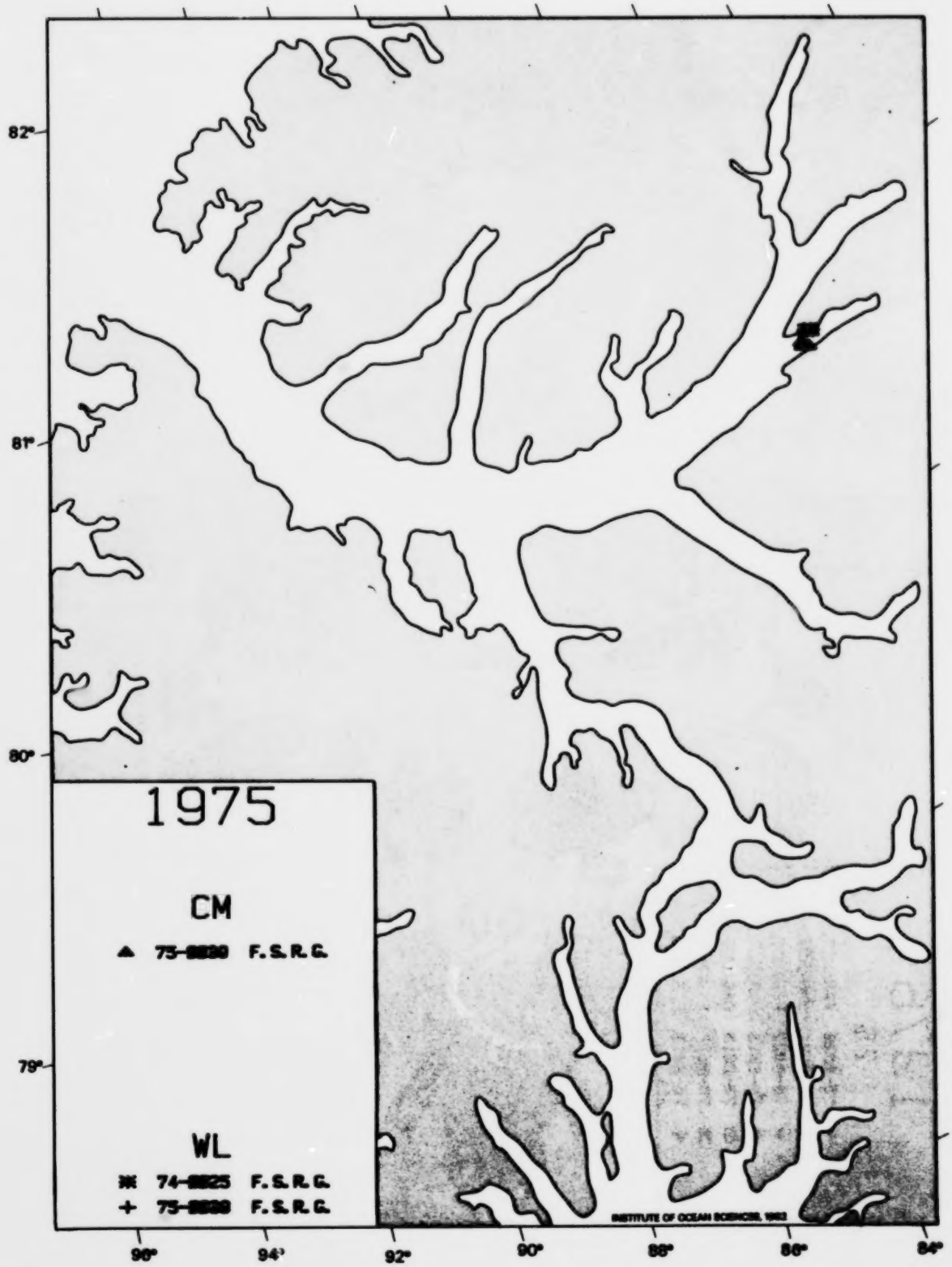

1974
CM
▲ 74-8818 PANARCT.
78°
76°
74°
115°
110°
105°
100°
95°
90°
85°
INSTITUTE OF OCEAN SCIENCES, 1982

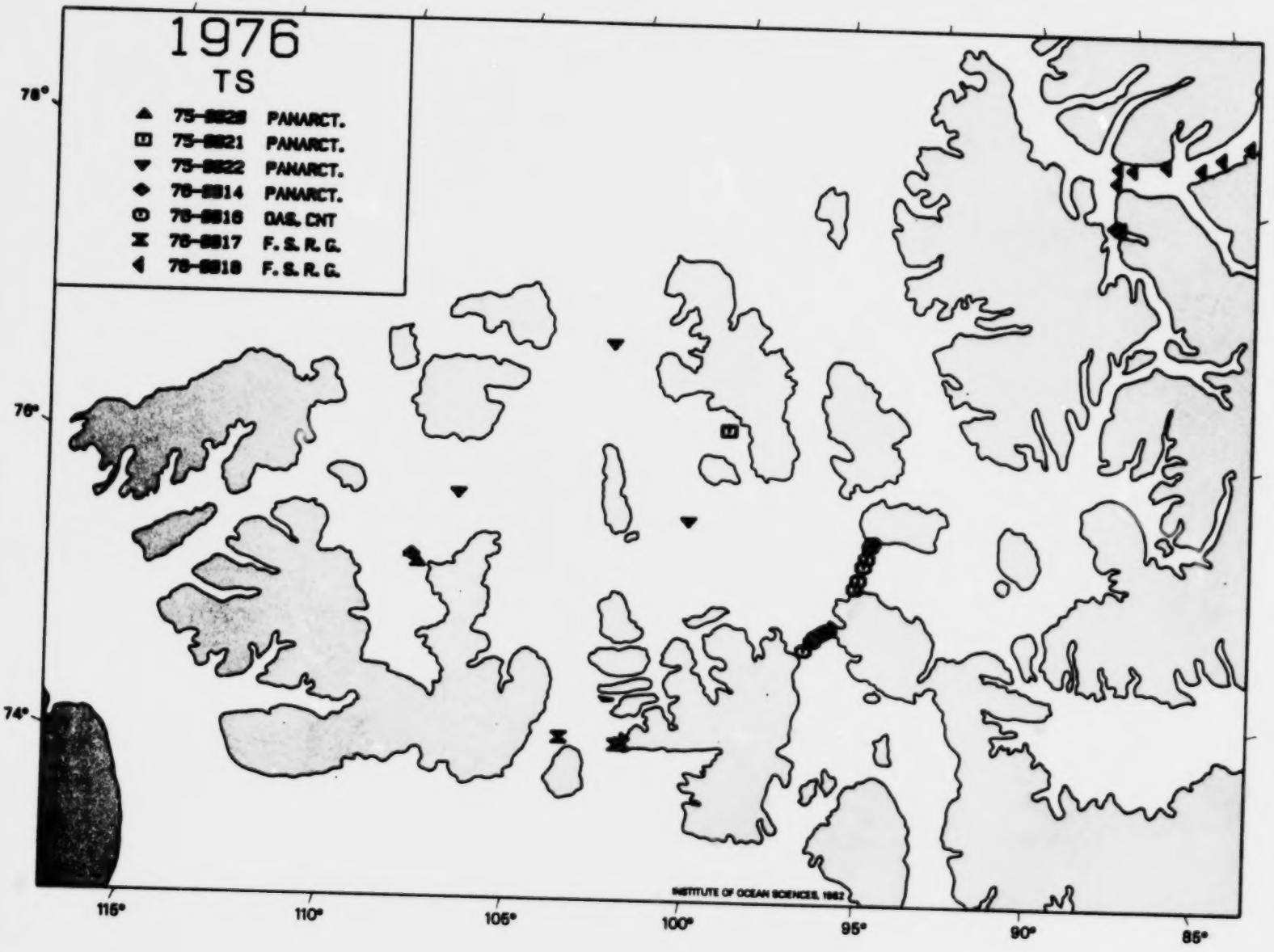

82°
81°
80°
79°
98°
94°
92°
90°
88°
86°
84°
1974
CM
▲ 74-8825 F.S.R.G.
WL
✱ 73-8813 F.S.R.G.
+ 74-8825 F.S.R.G.
INSTITUTE OF OCEAN SCIENCES, 1982

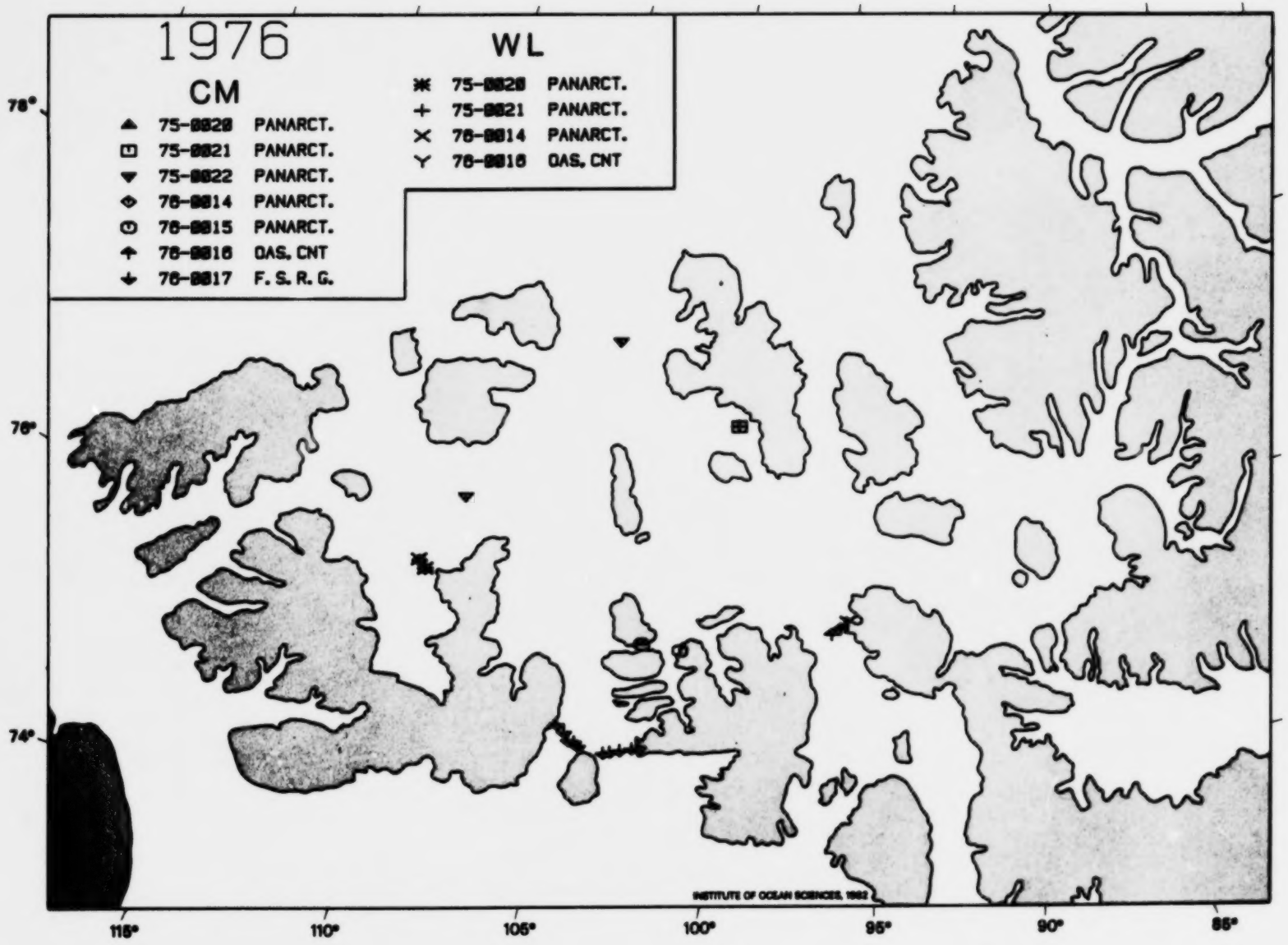

1975
TS
75-0030 F. S. R. G.
75-0016 PANARCT.
75-0017 PANARCT.
75-0018 PANARCT.
75-0019 PANARCT.
75-0023 PANARCT.
75-0028 PANARCT.
78°
76°
74°
115°
110°
105°
100°
95°
90°
85°
INSTITUTE OF OCEAN SCIENCES, 1982

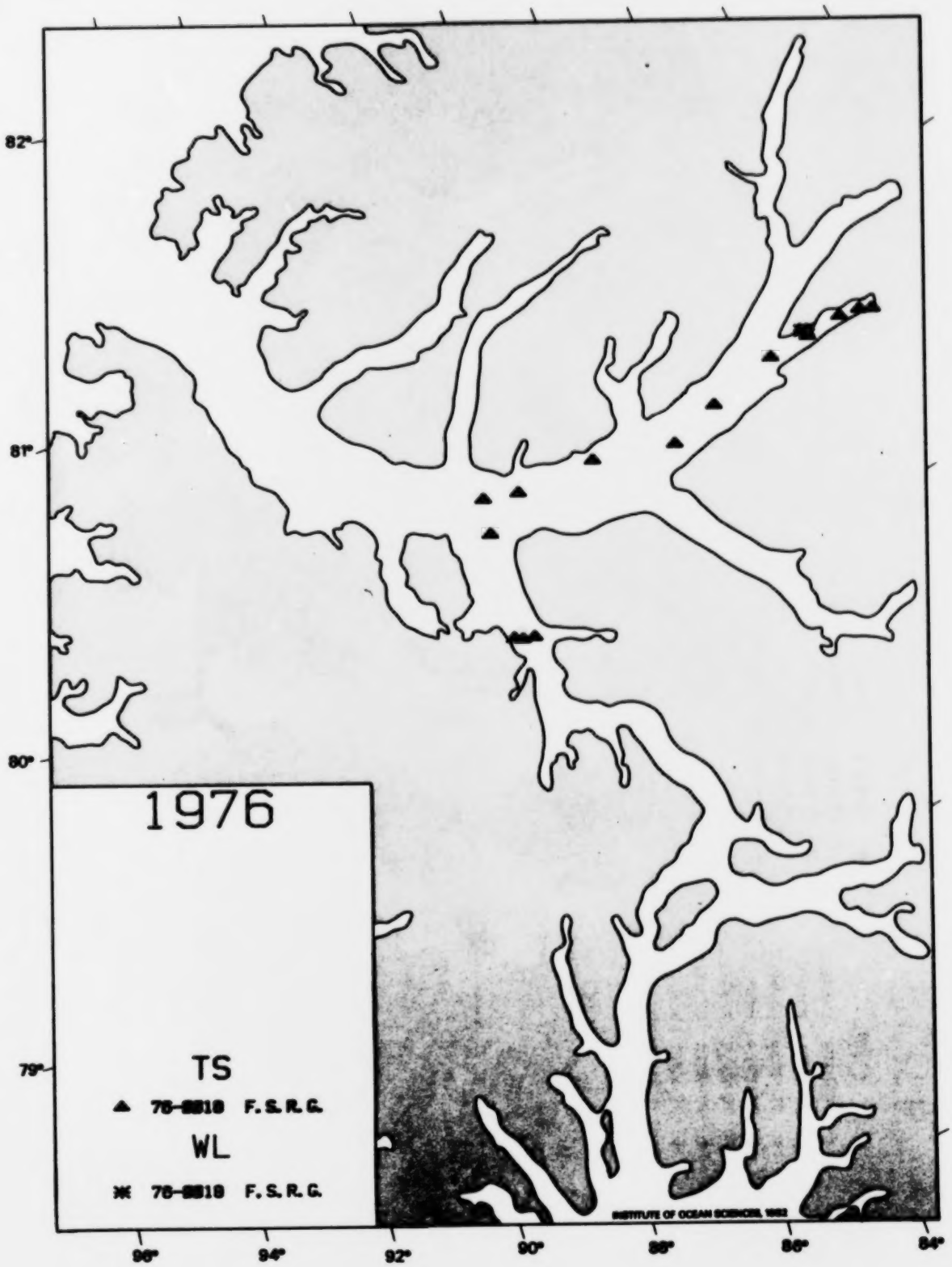

82°
81°
80°
79°
1975
TS
▲ 75-0839 F. S. R. G.
INSTITUTE OF OCEAN SCIENCES, 1982
96°
94°
92°
90°
88°
86°
84°

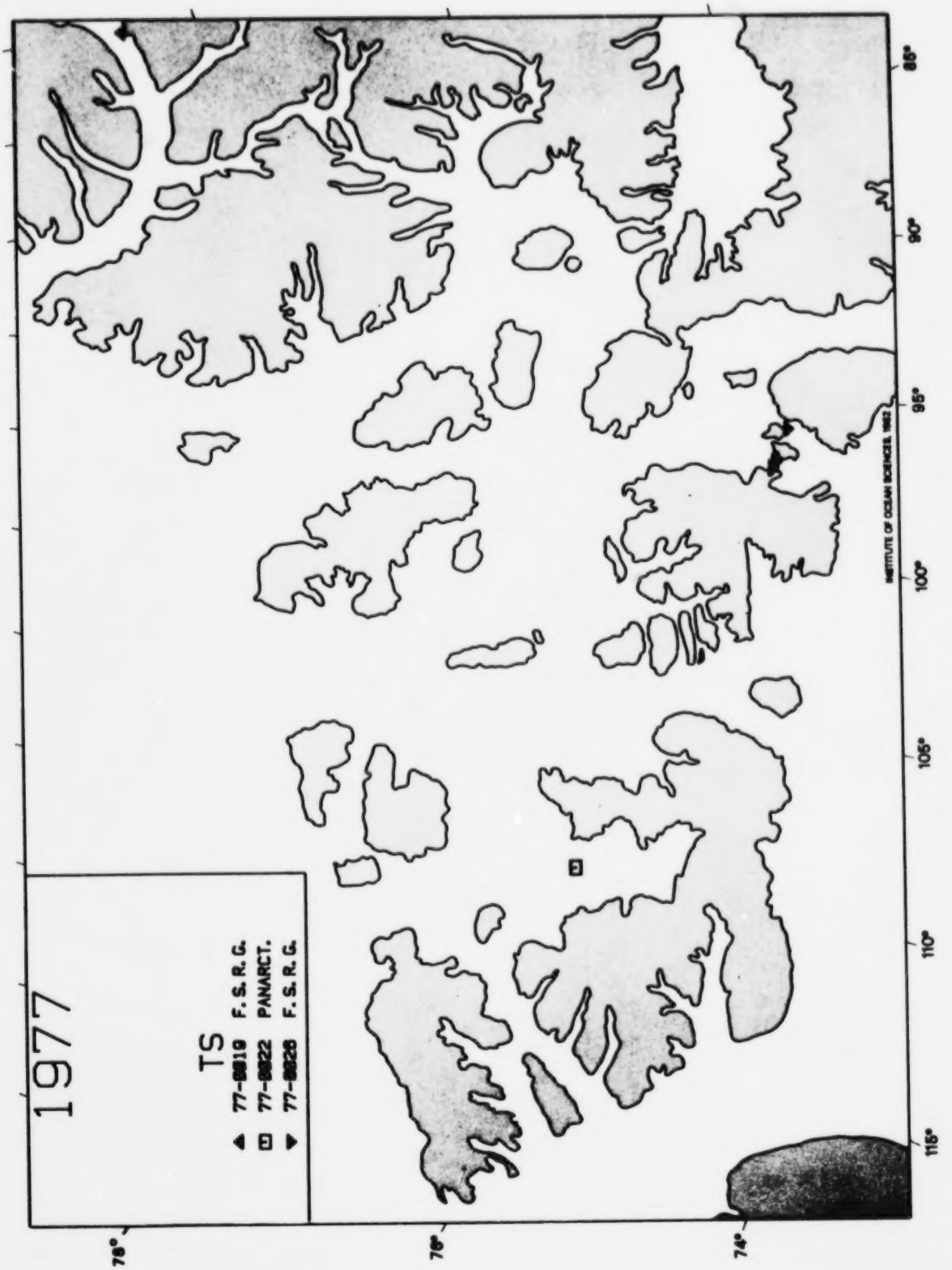

1975
CM
75-0016 PANARCT.
75-0017 PANARCT.
75-0018 PANARCT.
75-0019 PANARCT.
75-0020 PANARCT.
75-0022 PANARCT.
WL
75-0017 PANARCT.
75-0020 PANARCT.
75-0021 PANARCT.
75-0048 C.H.S.
78°
76°
74°
115°
110°
105°
100°
95°
90°
85°
INSTITUTE OF OCEAN SCIENCES, 1982

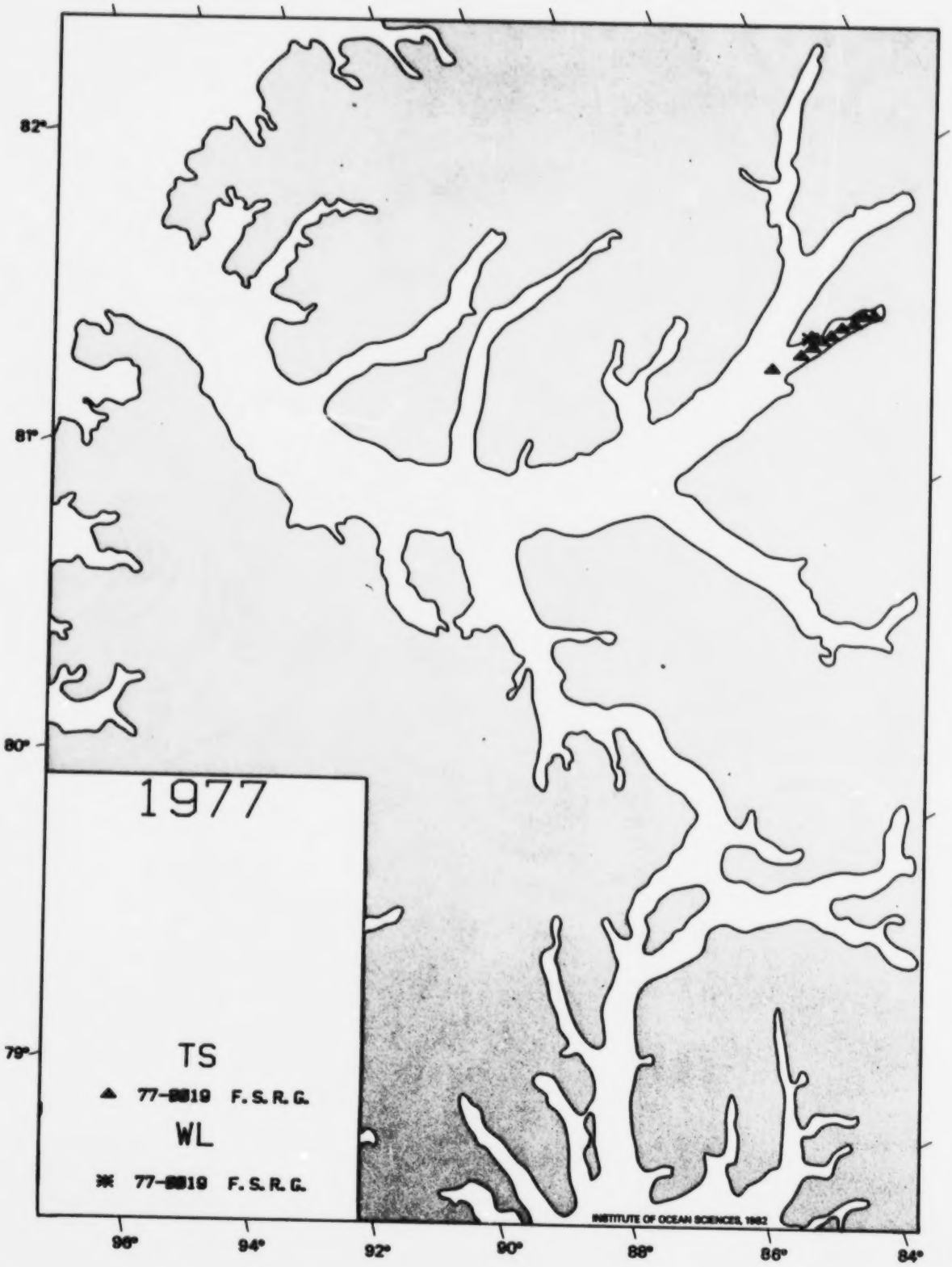

82°
81°
80°
79°
1975
CM
▲ 75-0020 F.S.R.G.
WL
✱ 74-0025 F.S.R.G.
+ 75-0020 F.S.R.G.
INSTITUTE OF OCEAN SCIENCES, 1983
96°
94°
92°
90°
88°
86°
84°

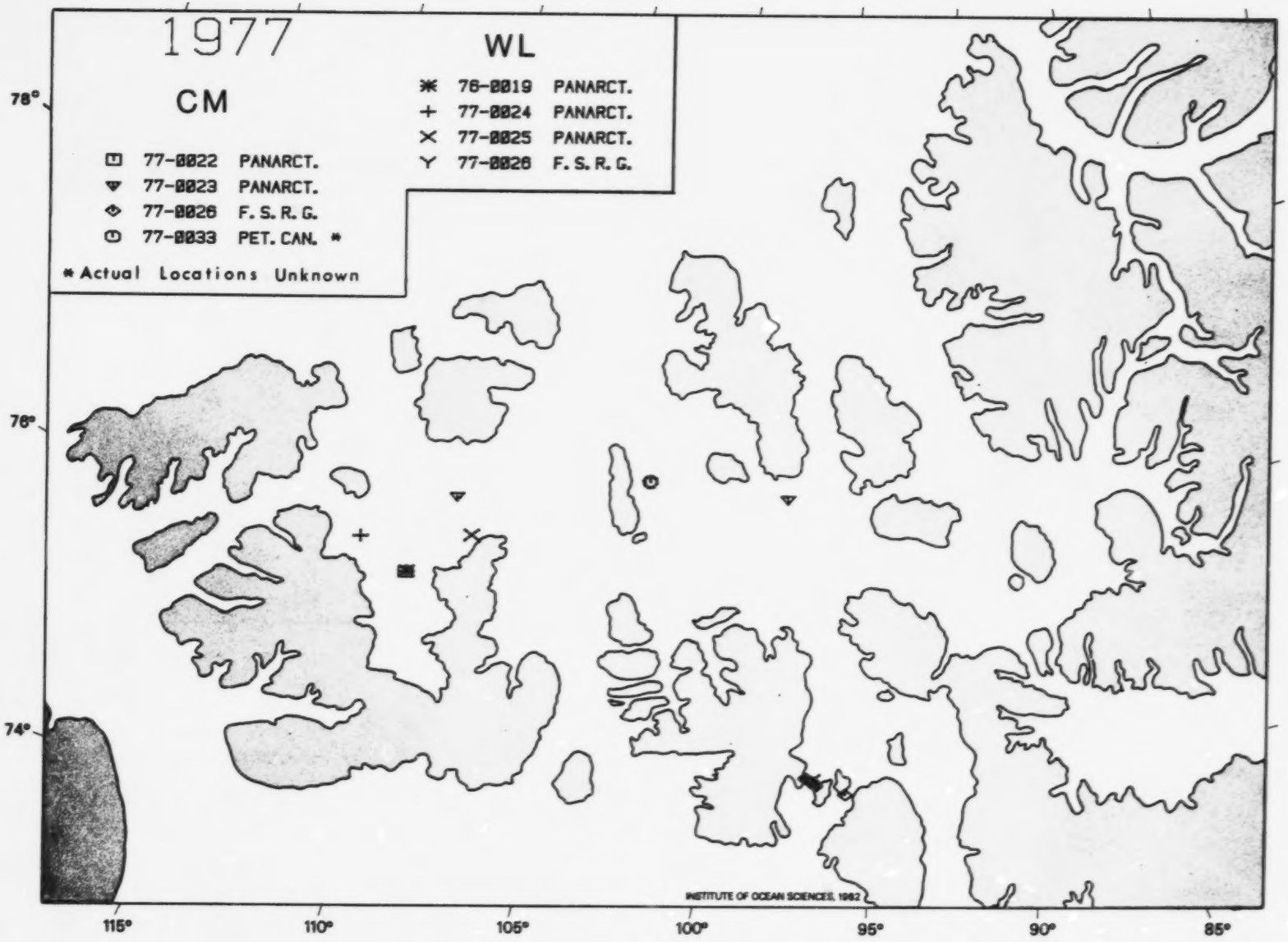

1976
TS
75-0828 PANARCT.
75-0821 PANARCT.
75-0822 PANARCT.
76-0814 PANARCT.
76-0816 OAS. CNT
76-0817 F. S. R. G.
76-0818 F. S. R. G.
78°
76°
74°
115°
110°
105°
100°
95°
90°
85°
INSTITUTE OF OCEAN SCIENCES, 1982

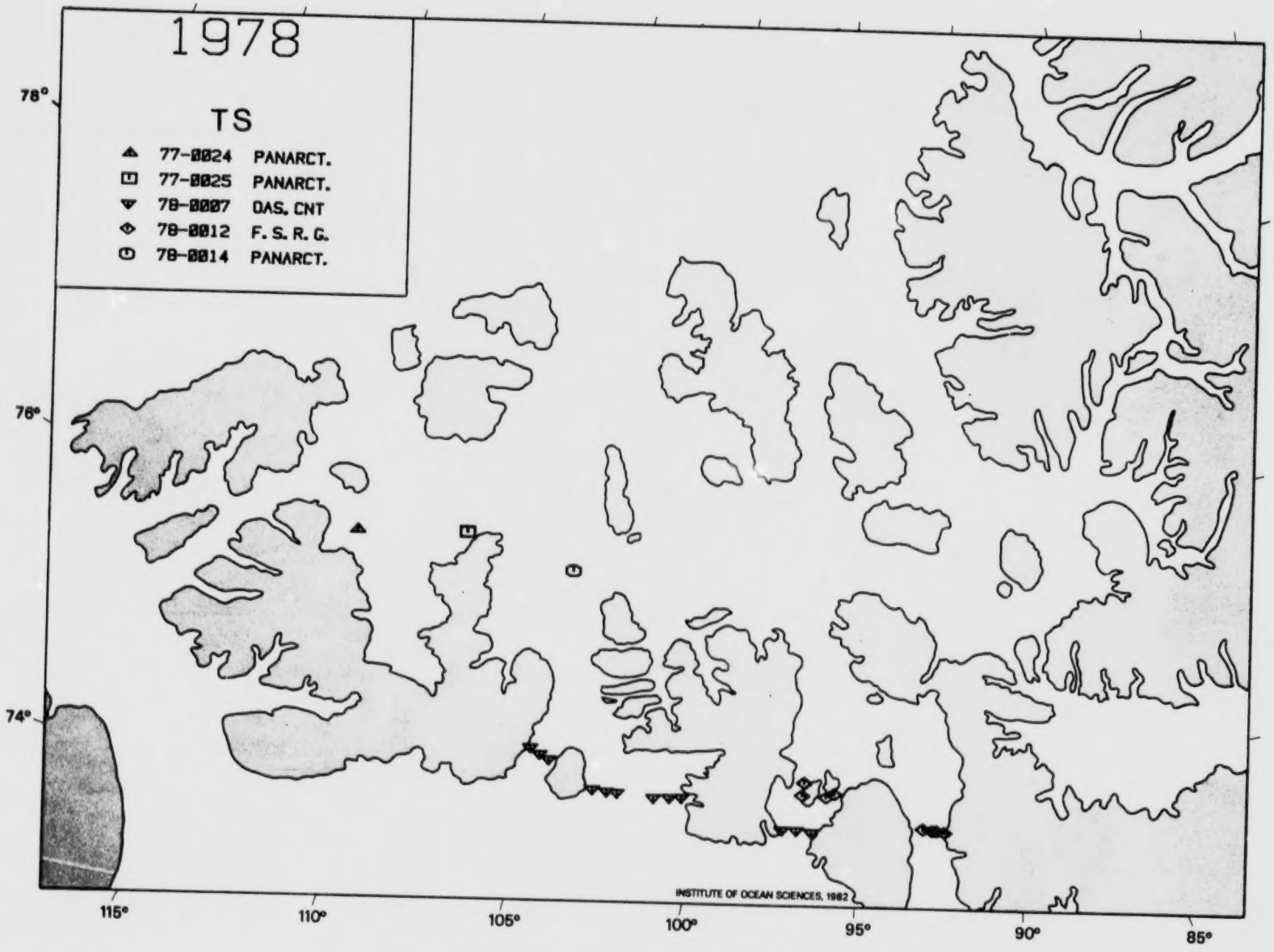

1976
CM
75-0828 PANARCT.
75-0821 PANARCT.
75-0822 PANARCT.
76-0814 PANARCT.
76-0815 PANARCT.
76-0816 OAS. CNT
76-0817 F. S. R. G.
WL
75-0828 PANARCT.
75-0821 PANARCT.
76-0814 PANARCT.
76-0816 OAS. CNT
78°
76°
74°
118°
110°
105°
100°
95°
90°
85°
INSTITUTE OF OCEAN SCIENCES, 1982

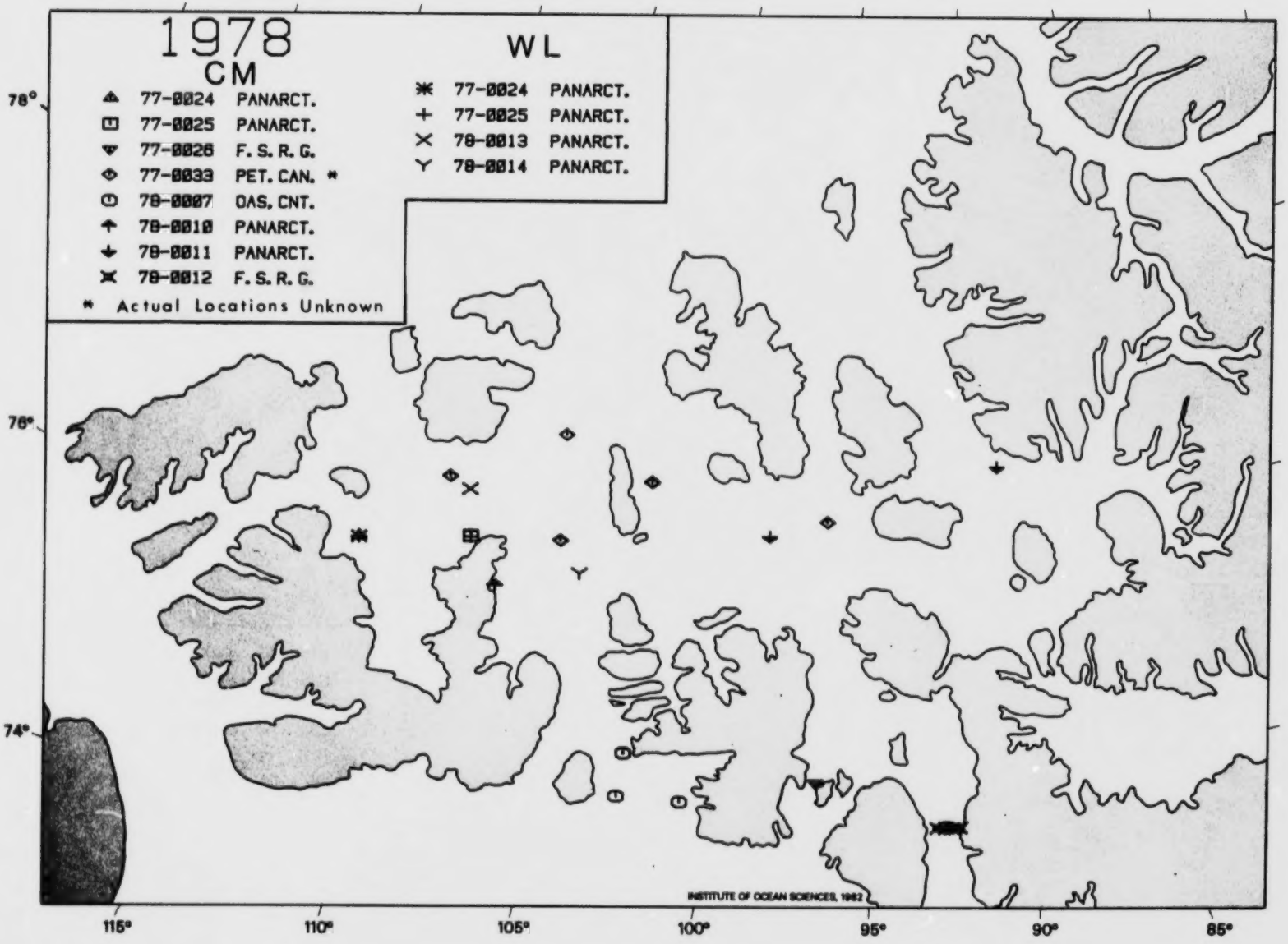

82°
81°
80°
79°
98°
94°
92°
90°
88°
86°
84°
1976
TS
▲ 76-8818 F.S.R.C.
WL
✱ 76-8818 F.S.R.C.
INSTITUTE OF OCEAN SCIENCES, 1982

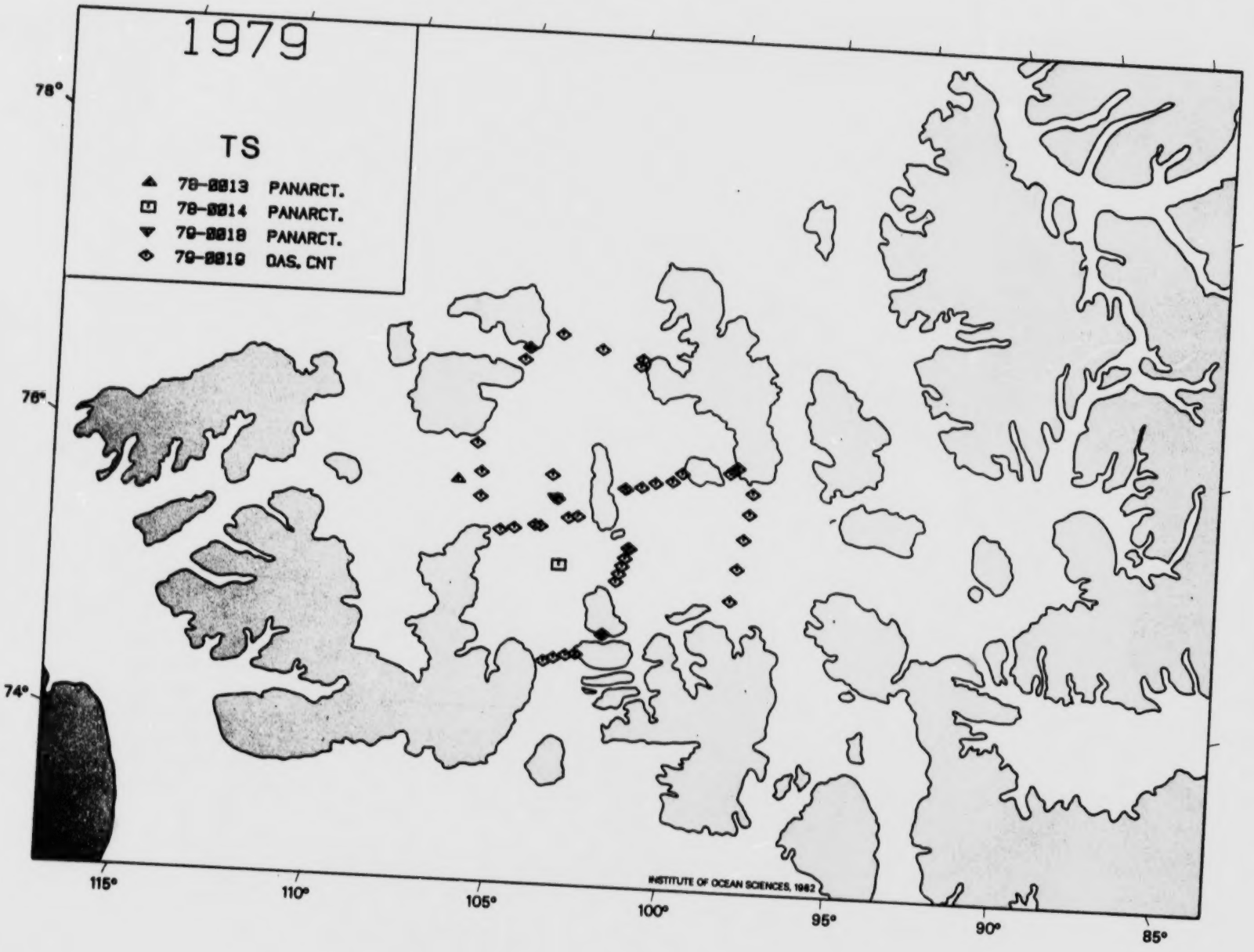

1977
TS
77-0019 F.S.R.G.
77-0022 PANARCT.
77-0026 F.S.R.G.
78°
76°
74°
85°
90°
95°
100°
105°
110°
115°
INSTITUTE OF OCEAN SCIENCES, 1982

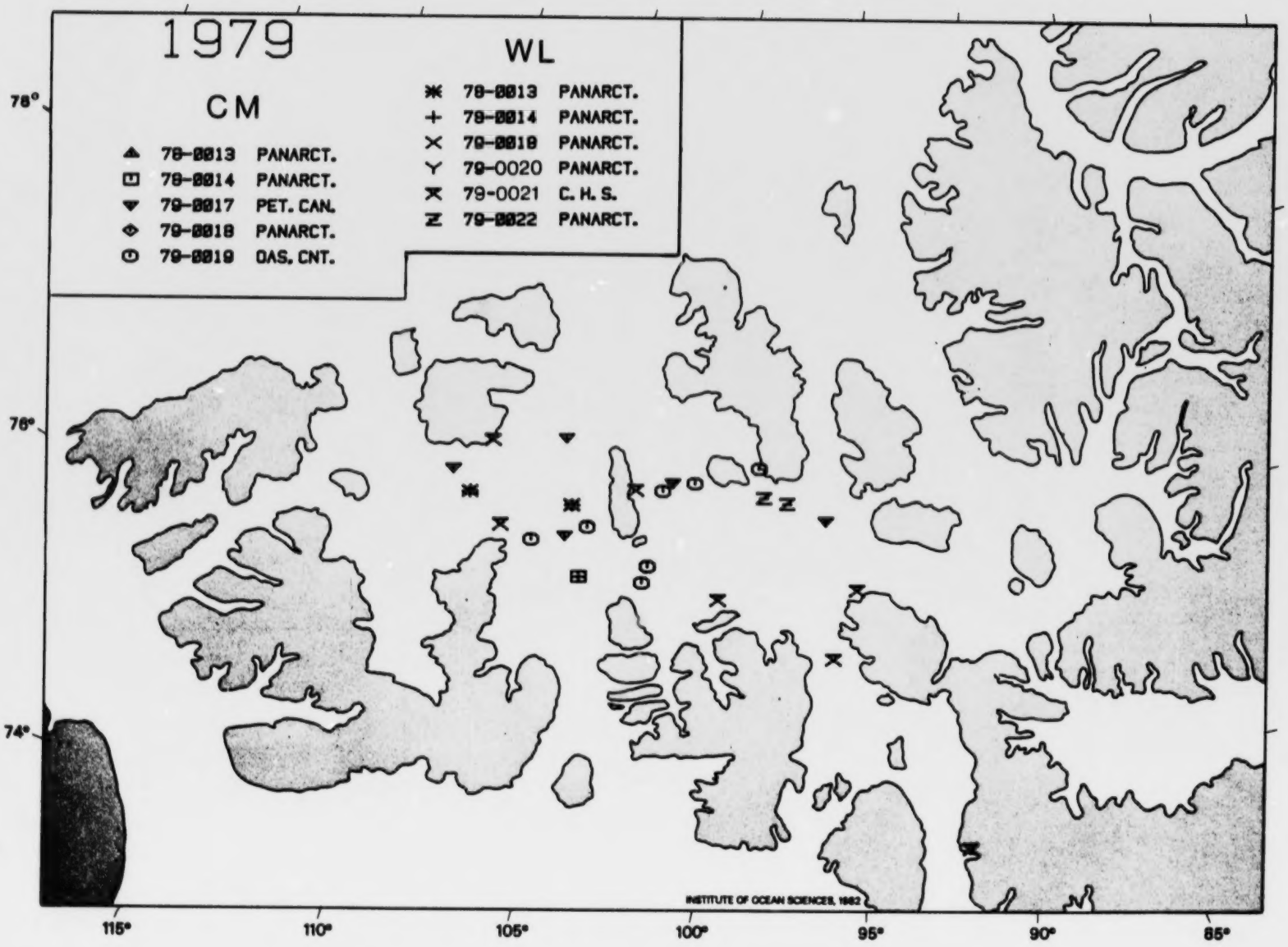

82°
81°
80°
79°
1977
TS
77-8819 F.S.R.G.
WL
77-8819 F.S.R.G.
INSTITUTE OF OCEAN SCIENCES, 1982
96°
94°
92°
90°
88°
86°
84°

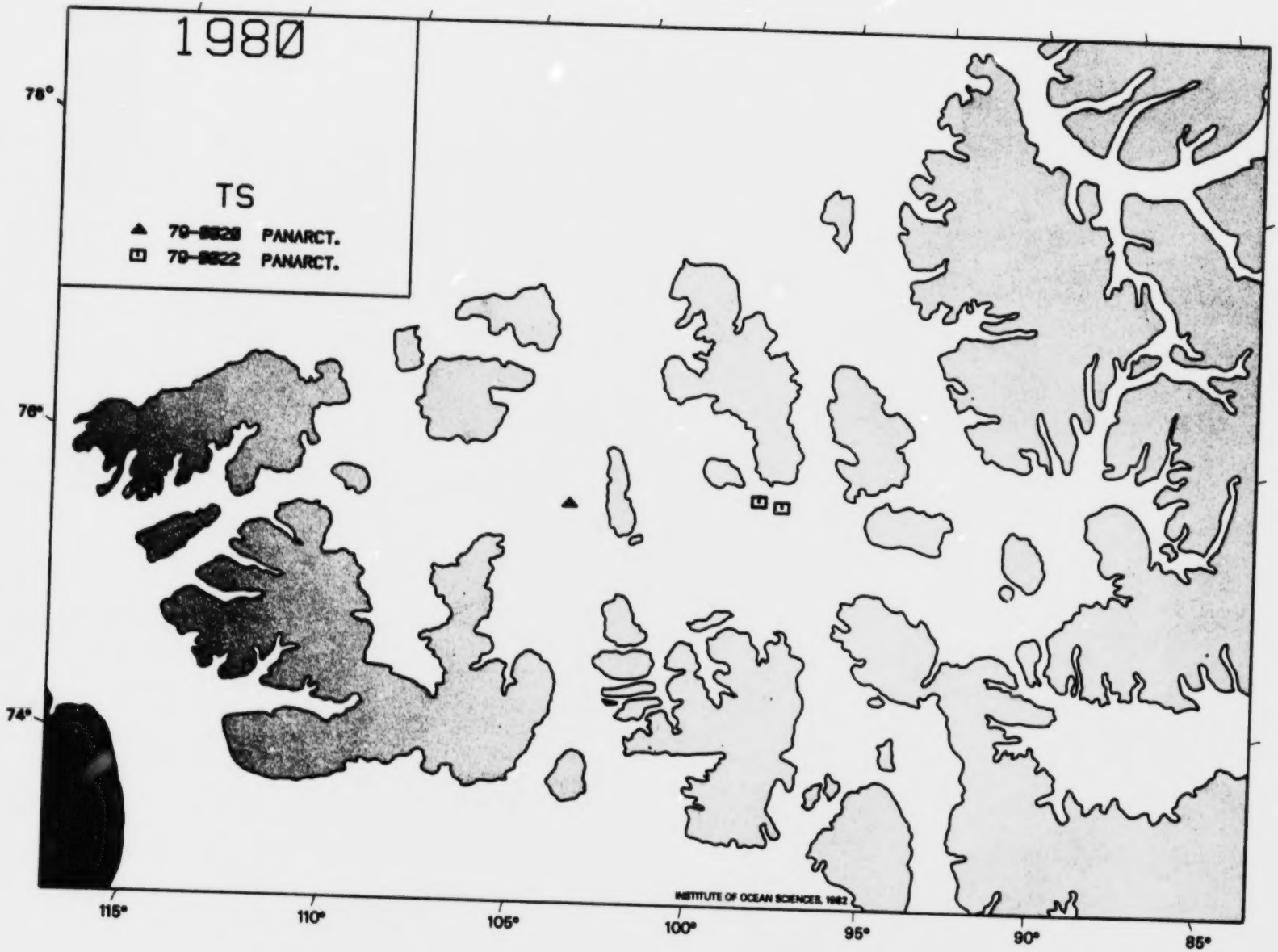

1977
CM
77-0022 PANARCT.
77-0023 PANARCT.
77-0026 F. S. R. G.
77-0033 PET. CAN. *
* Actual Locations Unknown
WL
76-0019 PANARCT.
77-0024 PANARCT.
77-0025 PANARCT.
77-0028 F. S. R. G.
78°
76°
74°
115°
110°
105°
100°
95°
90°
85°
INSTITUTE OF OCEAN SCIENCES, 1982

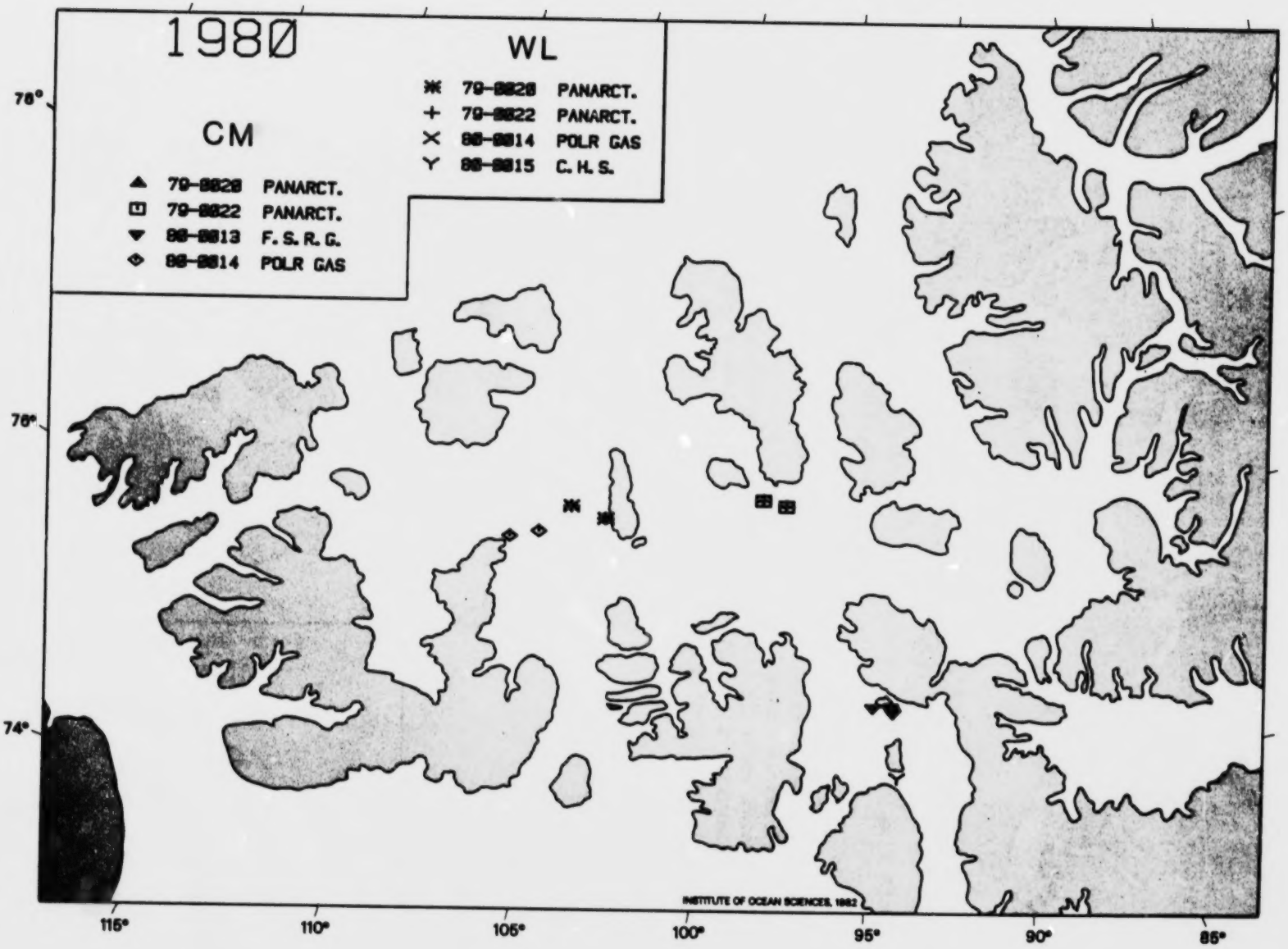

1978
TS
77-0024 PANARCT.
77-0025 PANARCT.
78-0007 DAS. CNT
78-0012 F. S. R. G.
78-0014 PANARCT.
78°
76°
74°
115°
110°
105°
100°
95°
90°
85°
INSTITUTE OF OCEAN SCIENCES, 1982

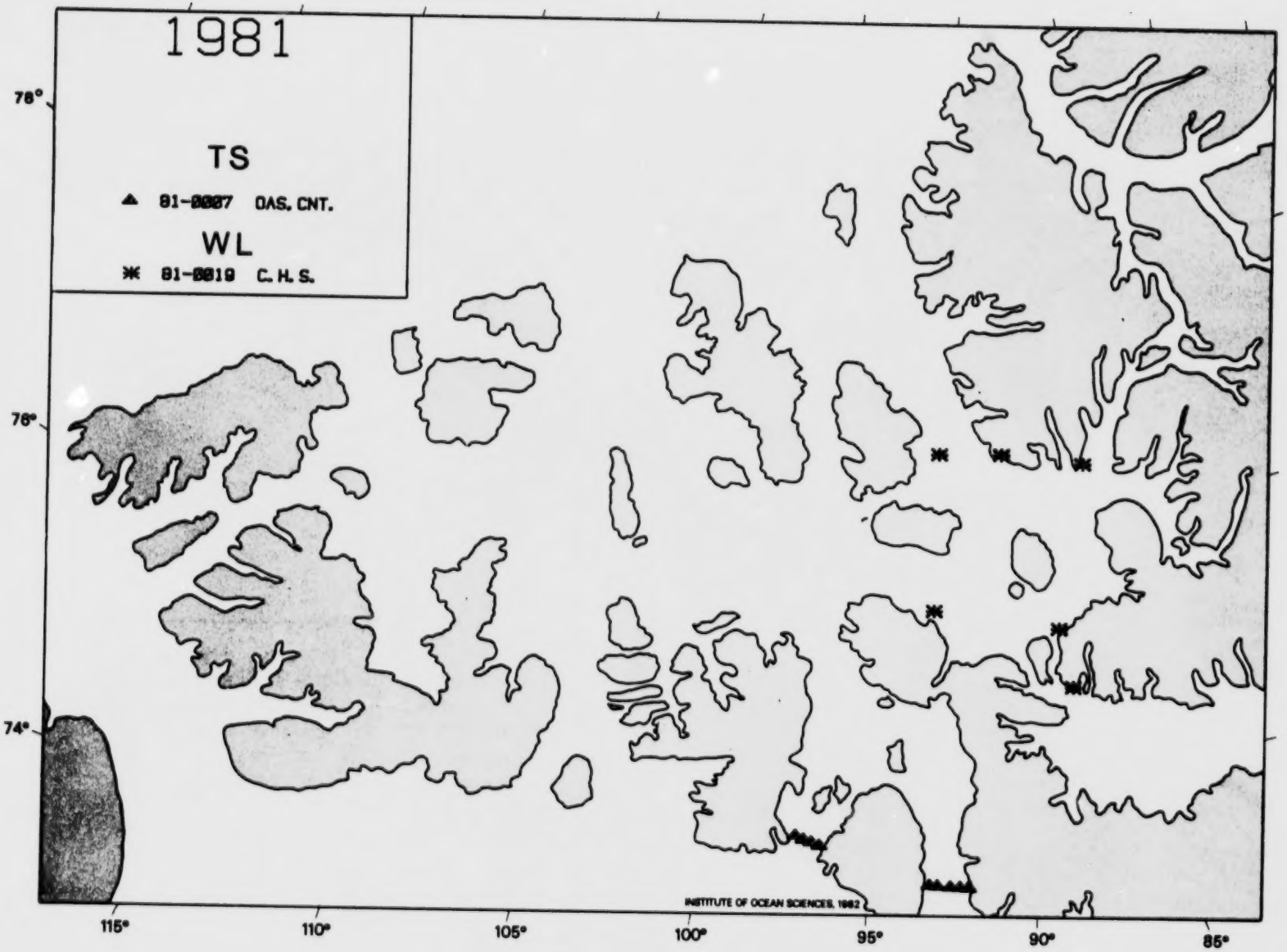

1978
CM
77-0024 PANARCT.
77-0025 PANARCT.
77-0026 F. S. R. G.
77-0033 PET. CAN. *
78-0007 OAS. CNT.
78-0010 PANARCT.
78-0011 PANARCT.
78-0012 F. S. R. G.
* Actual Locations Unknown
WL
77-0024 PANARCT.
77-0025 PANARCT.
78-0013 PANARCT.
78-0014 PANARCT.
78°
76°
74°
115°
110°
105°
100°
95°
90°
85°
INSTITUTE OF OCEAN SCIENCES, 1982


1979
TS
78-0013 PANARCT.
78-0014 PANARCT.
79-0018 PANARCT.
79-0019 OAS. CNT
78°
76°
74°
115°
110°
105°
100°
95°
90°
85°
INSTITUTE OF OCEAN SCIENCES, 1982


1979
CM
78-0013 PANARCT.
78-0014 PANARCT.
78-0017 PET. CAN.
78-0018 PANARCT.
78-0019 OAS. CNT.
WL
78-0013 PANARCT.
78-0014 PANARCT.
78-0018 PANARCT.
79-0020 PANARCT.
79-0021 C. H. S.
79-0022 PANARCT.
78°
76°
74°
115°
110°
105°
100°
95°
90°
85°
INSTITUTE OF OCEAN SCIENCES, 1982


1980
TS
79-8828 PANARCT.
79-8822 PANARCT.
78°
76°
74°
115°
110°
105°
100°
95°
90°
85°
INSTITUTE OF OCEAN SCIENCES, 1982


1980
WL
79-0828 PANARCT.
79-0822 PANARCT.
88-0814 POLR GAS
88-0815 C.H.S.
CM
79-0828 PANARCT.
79-0822 PANARCT.
88-0813 F.S.R.G.
88-0814 POLR GAS
78°
76°
74°
115°
110°
105°
100°
95°
90°
85°
INSTITUTE OF OCEAN SCIENCES, 1982


1981
TS
81-0007 OAS. CNT.
WL
81-0019 C. H. S.
78°
76°
74°
115°
110°
105°
100°
95°
90°
85°
INSTITUTE OF OCEAN SCIENCES, 1982

10. INDEXES

This section contains three indexes to the data sets. The first is a geographical index which provides a listing by sub-areas (Figure 1). All data sets with any measurements in a particular sub-area are listed by number under that sub-area. The second index classifies the data sets by measurement type, under the following headings:

Temperature and salinity-bottle	: measurements at discrete points in the water column
Profiles of temperature and salinity	: measurements made with a profiling instrument such as a CTD.
Water levels, bottom pressure	: measurements from shore-based tide stations or bottom pressure gauges
Eulerian currents	: measurements of current velocity at a fixed point with a current meter

The third index lists references for each data set by number. The data set number appears at the left hand side of the page, with references listed to the right. The main references are listed followed by other interpretive or analytical references, indented with respect to the main references. The list of interpretive or analytical references may not be complete.

10.1 GEOGRAPHICAL INDEX

Ballantyne Strait	Wilkens Strait	Hazen Strait	West Loughead Island	Prince Gustaf Adolf Sea	MacLean Strait	Arnot Strait-Erskine Inlet	Peary Channel	Sverdrup Channel	Massey Sound	Hansen Sound	Greely Fiord	Fitzwilliam Strait	Hecla & Griper Bay	E.Sabine Peninsula
60-0007	60-0007	75-0016 75-0018 75-0022 77-0023 77-0024 77-0025 77-0033 78-0013 79-0017 79-0019 79-0020 79-0021 79-0022?	77-0033 79-0017 79-0018 79-0019 79-0020 79-0021 80-0014	49-0001 54-0010 59-0004 60-0007 61-0009 64-0005 75-0022 79-0019	74-0018 75-0021 75-0022 75-0023 77-0033 79-0017 79-0019 79-0021	76-0015	60-0007	60-0007 62-005B 73-0012 70-0019 72-0024	77-0026	62-0005B 62-0006 63-0010 64-0008 65-0005 66-0010 67-0002 67-0005 68-0008 69-0014 69-0015 70-0017 70-0018 71-0015 72-0023 73-0013 74-0025 75-0039 76-0018 77-0019	62-0006	75-0016	75-0016 75-0020 76-0014 76-0019 77-0022 77-0024	75-0017 75-0019 78-0010

Dealbarata Strait	Edinburgh Sea	Penny Strait	Queens Channel	Belcher Channel	Norwegian Bay	Eureka Sound	Crozier Channel	Kellett Strait	Byam Martin Channel	Byam Channel	Austin Channel	Crozier & Pullen Strait	McDougall Sound	Wellington Channel
75-0018 78-0014 79-0019	74-0018 75-0018 77-0023 77-0033 78-0011 79-0017 79-0019 79-0021 79-0022	57-0003 62-0005A 62-0006 76-0016 79-0021	57-0003 61-0003 62-0013 80-0013	76-0016 81-0019	52-0003 61-0003 62-0006 67-0002 68-0001 78-0011 81-0019	48-0001 52-0003 54-0010 61-0005 62-0006 67-0002	51-0007	62-0006	78-0016 79-0019	54-0001 61-0003 64-0004 69-0016 73-0014 75-0040 76-0017 78-0007	61-0003 62-0006 76-0017 78-0007	77-0026 78-0012	73-0014 78-0007 81-0007	54-0001 57-0003 60-0005 61-0003 61-0004 62-0006 67-0002 68-0001 73-0006 73-0008 78-0012 79-0021 80-0015 81-0007

10.2 MEASUREMENT TYPE INDEX

Profiles of Temperature & Salinity	Water Levels, Bottom Pressure	Eulerian Currents	Temperature & Salinity
67-0002	49-0001	61-0009	48-0001
69-0014	51-0007	67-0002	52-0003
70-0017	54-0010	73-0012	54-0001
71-0015	59-0004	74-0018	57-0003
72-0023?	62-0013	74-0025	60-0005
73-0006	63-0010	75-0016	60-0007
73-0008	64-0008	75-0017	61-0003
73-0012	68-0008	75-0018	61-0004
73-0013	69-0015	75-0019	61-0005
74-0018?	69-0016	75-0020	61-0009
74-0025	70-0017	75-0021	62-0005
75-0016	70-0018	75-0022	62-0006
75-0017?	72-0023	75-0039	63-0010
75-0018	73-0013	76-0014	64-0004
75-0019	73-0014	76-0015	64-0005
75-0020	74-0025	76-0016	64-0008
75-0021	75-0017	76-0017	65-0005
75-0022	75-0020	77-0022	66-0010
75-0023	75-0021	77-0023	67-0002
75-0039	75-0022	77-0024	67-0005
76-0014	75-0040	77-0025	68-0001
76-0016	76-0014	77-0026	69-0015
76-0017	76-0016	77-0033	70-0018
76-0018	76-0018	78-0007	
77-0019	76-0019	78-0010	
77-0022	77-0019	78-0011	
77-0026	77-0024	78-0012	
78-0007	77-0025	78-0013	
78-0012	77-0026	78-0014	
78-0013	78-0013	79-0017	
78-0014	78-0014	79-0018	
79-0018	78-0016	79-0019	
79-0019	79-0018	79-0020	
79-0020	79-0020	79-0022	
79-0022	79-0021	80-0013	
	79-0022	80-0014	
	80-0014		
	80-0015		
	81-0019		

10.3 INDEX OF REFERENCES BY DATA SET NUMBER

48-0001 Metcalfe, W.G., 1949. Oceanographic program of the U.S. Navy Task Force 80. Arctic Operation Summer 1948. WHOI Ref. No. 49-4. 67 pp.

52-0003 U.S. Navy Hydrographic Office, 1954. Oceanographic observations, Arctic waters, USS Edisto and USS Atka. H.O. Pub. 618-A, U.S. Navy Hydrographic Office, Washington, D.C. (unpublished manuscript). 316 p.

54-0001
Bailey, W.B., 1955. Oceanographic reconnaissance in the Canadian archipelago (1954). Fish. Res. Bd. Canada MSS Rept. Biol. Sta., No. 603. 145 p.

Bailey, W.B., 1957. Oceanographic features of the Canadian archipelago. J. Fish. Res. Bd. Canada, 14(5): 731-769.

57-0003 Collin, A.E., 1962. On the oceanography of Lancaster Sound. Ph.D. Thesis. McGill University, Montreal. 204 p.

60-0005 Canadian Oceanographic Data Centre, 1964. Data record - eastern Arctic, 1960. 1964 Data Record Series No. 18. Ottawa. 204 p. plus illustrations.

60-0007 Collin, A.E., 1961. Oceanographic activities of the Polar Continental Shelf Project. J. Fish. Res. Board, Canada 18: 253-258.

61-0003 Canadian Oceanographic Data Centre, 1966. Arctic 1961. 1966 Data Record Series No. 12. Ottawa. 322 p.

61-0004 See 61-0003.

61-0009 Herlinveaux, R.H., 1961. Data record of oceanographic observations made in pacific naval laboratory underwater sound studies, 1961. Fish. Res. Bd. Can. Manuscript Report Series No. 108. Ottawa. 85p.

62-0005 Canadian Oceanographic Data Centre, 1963. Five Arctic Surveys. Data Record Series No. 4. Ottawa, 90 p.

62-0006 Canadian Oceanographic Data Centre, 1966b. Arctic, Hudson Bay and Hudson Strait. Data Record Series No. 4. Ottawa. 247 p.

Barber, F.G. and A. Huyer, 1971. On the water of the Canadian Arctic Archipelago, an atlas presentation of 1961 and 1962 data. Manuscript Report Series No. 21, Marine Sciences Branch, Department of Energy, Mines and Resources, Ottawa. 76 p.

63-0010 Canadian Oceanographic Data Centre, 1969. Operation Tanquary, Ellesmere Island, N.W.T., 1963-1966. 1969 Data Record Series No. 13. Ottawa. 152 p.

Hattersley-Smith, G., 1964. Operation Tanguary: Preliminary Report, 1963. Defence Research Board, Department of National Defence, Ottawa. 33 p.

Ford, W.L. and G. Hatterlsey-Smith, 1965. On the oceanography of the Nansen Sound fiord system. Arctic, 18(3): 158-171.

Hattersley-Smith, G. and H. Serson, 1964. Stratified water of a glacial lake in northern Ellesmere Island. Arctic, 10: 109-110.

Hattersley-Smith, G. and H. Serson, 1966. Reconnaissance oceanography over the ice of the Nansen Sound fiord system. Defence Research Board, Dept. of National Defence, Ottawa. 13 p. plus figures.

64-0005 Herlinveaux, R.H., 1965. Oceanographic observations during the Icepack V expedition to the Canadian Arctic, February 1964. Fish. Res. Bd. Can. Manuscript Report Series No. 198. Ottawa. 30 p.

64-0008 Canadian Oceanographic Data Centre, 1969. Operation Tanquary, Ellesmere Island, N.W.T., 1963-1966. 1969 Data Record Series No. 13. Ottawa. 152 p.

Ford, W.L. and G. Hattersley-Smith, 1965. On the oceanography of the Nansen Sound fiord system. Arctic, 18(3): 158 p.

Hattersley-Smith, G. and H. Serson, 1966. Reconnaissance oceanography over the ice of the Nansen Sound fiord system. Defence Research Board, Dept. of National Defence, Ottawa. 13 p. plus figures.

Hattersley-Smith, G., 1967. Operation Tanquary: preliminary report, 1964. Defence Research Board, Department of National Defence, Ottawa. 50 p.

65-0005 Canadian Oceanographic Data Centre, 1969. Operation Tanquary, Ellesmere Island, N.W.T., 1963-1966. 1969 Data Record Series No. 13. Ottawa. 152 p.

66-0010 See 65-0005.

67-0002 Canadian Oceanographic Data Centre, 1968. Hudson Bay, Hudson Strait and Arctic. Data Record Series No. 4. Ottawa. 123 p.

Redfield, A.C. and I. Friedman, 1969. The effect of meteoric, melt water and brine on the composition of polar sea water and of the deep waters of the ocean. Deep Sea Res. Supp. to Vol. 16: 197-214.

68-0001 Herlinveaux, R.H., 1970. Icepack 8/68 - oceanographic and biological observations. Fish. Res. Bd. Can., Nanaimo, B.C., Tech. Rep. No. 159. 60 p.

69-0014 Lake, R.A. and E.R. Walker, 1973. Notes on the oceanography of d'Iberville Fiord. Arctic, 26(3): 222-229.

Lake, R.A. and E.R. Walker, 1976. A Canadian arctic fiord with some comparisons to fiords of the western Americas. J. Fish. Res. Bd. Can. 33: 2272-2285.

69-0015 See 69-0014.

70-0016 Serson, H.V., 1974. Sverdrup Channel. DREO Technical Note 74-10, Defence Research Establishment, Ottawa, Department of National Defence. Ottawa. 4 p plus figures and plates.

70-0017 See 69-0014.

70-0018 See 69-0014.

70-0019 See 70-0016.

71-0015 See 69-0014.

72-0024 See 70-0016.

73-0006 Herlinveaux, R.H., D.B. Fissel and S.E.G. Wilson, 1978. Oceanographic observations in Barrow Strait and Wellington Channel, N.W.T., April 1973. Institute of Ocean Sciences, Sidney, B.C. Pac. Mar. Sc. Rep. 78-4. 170 p.

73-0008 Herlinveaux, R.H., D.B. Fissel and S.E.G. Wilson, (in preparation). Oceanographic observations in Barrow Strait and Wellington Channel, N.W.T., August-September, 1973. Institute of Ocean Sciences, Sidney, B.C.

73-0012 See 70-0016.

73-0013 Frozen Sea Research Group, 1973. Oceanographic data report - d'Iberville Fiord, Ellesmere Island, N.W.T., March to April 1973. Pacific Marine Science Report 73-10. Marine Sciences Directorate, Environment Canada, Victoria, B.C. (unpublished manuscript). 123 p.

Lake, R.A. and E.R. Walker, 1976. A Canadian arctic fiord with some comparisons to fiords of the western Americas. J. Fish. Res. Bd. Can. 33: 2272-2285.

74-0018 Beak Consultants Ltd., 1974. Environmental assessment and oil spill contingency plan in support of an application for drilling authority to Panarctic - Jackson Bay G-16. Report for Panarctic Oils Ltd., Calgary, Alberta (unpublished manuscript).

74-0025 Frozen Sea Research Group, 1975. Oceanographic data report - d'Iberville Fiord, Ellesmere Island, N.W.T., March to April 1974, August 1974. Pacific Marine Science Report 75-1, Institute of Ocean Sciences, Sidney, B.C. (unpublished manuscript). 139 p.

Lake, R.A. and E.R. Waker, 1976. A Canadian arctic fiord with some comparisons to fiords of the western Americas. J. Fish. Res. Bd. Can. 33: 2272-2285.

75-0016 Beak Consultants Ltd., 1975c. Preliminary report on current measurements for Panarctic site between Emerald Isle and Melville Island. Report to Panarctic Oils Ltd., Calgary, Alberta. 13 p.

Beak Consultants Ltd., 1976a. Analysis of oceanographic data, Cape Grassy. Report to Panarctic Oils Ltd., Calgary, Alberta (unpublished manuscript). 23 p. plus unnumbered appendices

75-0017 Beak Consultants Ltd., 1976b. Analysis of oceanographic data - Warrent Point - Northeast Drake. Report to Panarctic Oils Ltd., Calgary, Alberta (unpublished manuscript). 40 p. plus appendices.

75-0018 Beak Consultants Ltd., 1976c. Analysis of oceanographic data for APOA project #79. Report to Panarctic Oils Ltd., Calgary, Alberta (unpublished manuscript).

75-0019 Beak Consultants Ltd., 1975b. Biological investigations - Panarctic, Gulf et al., East Drake I-55. Report to Panarctic Oils Ltd., Calgary, Alberta (unpublished manuscript).

75-0020 Beak Consultants Ltd., 1976d. Analysis of oceanographic data - Hecla P-62. Report to Panarctic Oils Ltd., Calgary, Alberta (unpublished manuscript). 31 p. plus appendices.

75-0021 Beak Consultants Ltd., 1976e. Analysis of oceanographic data - Jackson Bay G-16. Report to Panarctic Oils Ltd., Calgary, Alberta (unpublished manuscript). 25 p. plus appendices.

75-0022 Innovative Ventures Ltd., 1976. Data report for Panarctic Oils Ltd. (APOA 95), Calgary, Alberta, 5 volumes (unpublished manuscript).

75-0023 Beak Consultants Ltd., 1975a. Marine surveys - Jackson Bay, a pre-operational study of the environment of Jackson Bay. Report to Panarctic Oils Ltd., Calgary, Alberta (unpublished manuscript).

75-0039 Frozen Sea Research Group, 1976a. Oceanographic data report, d'Iberville Fiord, Ellesmere Island, N.W.T., March to April 1975. Pacific Marine Sciences Report 76-19, Institute of Ocean Sciences, Sidney, B.C. (unpublished manuscript). 166 p.

76-0014 Beak Consultants Ltd., 1976f. Analysis of oceanographic data - Hecla M-25. Report to Panarctic Oils Ltd., Calgary, Alberta (unpublished manuscript). 36 p. plus appendices.

76-0016 Peck, G.S., 1977. Penny Strait. CCIW Data Report Series No. 77-2. Ocean and Aquatic Sciences, Central Region. Canada Centre for Inland Waters, Burlington, Ontario. 38 p. plus appendices.

76-0017 Frozen Sea Research Group, 1976b. Oceanographic data, Byam and Austin Channels, N.W.T. Institute of Ocean Sciences, Sidney, B.C. (unpublished manuscript available from Frozen Sea Research Group, Institute of Ocean Sciences).

Greisman, P. and R.A. Lake, 1977. Current observations in the channels of the Canadian Arctic Archipelago adjacent to Bathurst Island. Pacific Marine Science Report 78-23, Institute of Ocean Sciences, Sidney, B.C. (unpublished manuscript). 127 p.

76-0018 Frozen Sea Research Group, 1976c. Oceanographic data report, d'Iberville Fiord, Greely Fiord, Eureka Sound, Ellsmere Island, N.W.T., March 1976. Pacific Marine Science Report 76-20, Institute of Ocean Sciences, Sidney, B.C. (unpublished manuscript). 201 p.

76-0019 Van Ieperen, M.P., 1981. Oceanographic summary report of current, tide, temperature and salinity data (1974-1980). Panarctic Oils Ltd., Calgary, Alberta. 22 p. plus appendices.

77-0022 Innovative Ventures Ltd., 1977a. Oceanographic data report for Hecla C-58, spring 1977 data. Report to Panarctic Oils Ltd., Calgary, Alberta (unpublished manuscript).

77-0023 Innovative Ventures Ltd., 1977b. Summary report, ice motion, oceanographic and meteorological data (Project APOA 118). Report to Panarctic Oils Ltd., Calgary, Alberta, 4 volumes (unpublished manuscript).

77-0024 Panarctic Oils Ltd., 1978a. Cape Grassy I-34 oceanographic data report. Calgary, Alberta (unpublished manuscript).

77-0025 Panarctic Oils Ltd., 1978b. Roche Point O-43 oceanographic data report. Calgary, Alberta (unpublished manuscript).

77-0026 Frozen Sea Research Group, 1977. Oceanographic data, Crozier and Pullen Straits, N.W.T., March to April 1977. Pacific Marine Science Report 77-20. Institute of Ocean Sciences, Sidney, B.C.

77-0033 Fissel, D.B, 1982. Current meter measurements from the SALDAS buoys, 1977-1979: a data report. Report to Petro-Canada, Calgary, Alberta by Arctic Sciences Ltd., Sidney, B.C. (unpublished manuscript). 47 p.

78-0007 Prinsenberg, S.J., 1978. Arctic oceanographic data report 1978, Volume I. Data Report Series 78-4, Ocean and Aquatic Sciences, Central Region, Canada Centre for Inland Waters, Burlington, Ontario (unpublished manuscript). 211 p.

Peck, G.S., 1980a. Arctic oceanographic data report 1978, Volume 2. Data Report Series 80-1, Ocean and Aquatic Sciences, Central Region, Canada Centre for Inland Waters, Burlington, Ontario (unpublished manuscript). 163 p.

78-0011 Panarctic Oils Ltd., 1979d. Atmospheric and oceanographic data report, N.E. Cornwall and Edinburgh Sea stations (AIEG Ice Motion Program 1977/78). Calgary, Alberta (unpublished manuscript).

78-0012 Frozen Sea Research Group, 1981. Oceanographic data report, Crozier and Pullen straits, N.W.T., Wellington Channel, N.W.T., March-April, 1978. Institute of Ocean Sciences, Sidney, B.C. (unpublished data report).

78-0013 Panarctic Oils Ltd, 1979a. Hazen F-54 oceanographic data report. Calgary, Alberta (unpublished manuscript).

78-0014 Panarctic Oils Ltd., 1979b. Desbarats B-73 oceanographic data report. Calgary, Alberta (unpublished manuscript).

78-0016 Van Ieperen, M.P., 1981. Oceanographic summary report of current, tide, temperature and salinity data (1974-1980). Panarctic Oils Ltd., Calgary, Alberta. 22 p. plus appendices.

78-0018 Panarctic Oils Ltd., 1979c. Whitefish H-63 oceanographic data report. Calgary, Alberta (unpublished manuscript).

79-0019 Peck, G.S., 1980b. Arctic oceanographic data report 1979, Sverdrup Base, Volume 1. Data Report Series 80-2, Aquatic Sciences, Central Region, Canada Centre for Inland Waters, Burlington, Ontario (unpublished manuscript). 228 p.

Peck, G.S, 1980c. Arctic oceanographic data report 1979, Sverdrup Basin, Volume 2. Data Report Series 80-3, Ocean and Aquatic Sciences, Central Region, Canada Centre for Inland Waters, Burlington, Ontario. 91 p. (unpublished manuscript).

79-0020 Panarctic Oils Ltd., 1980a. Whitefish H-63A oceanographic data report. Calgary, Alberta (unpublished manuscript). 17 p. plus appendices.

79-0022 Panarctic Oils Ltd., 1980b. Balaena D-58, Char G-07, oceanographic data report. Calgary, Alberta (unpublished manuscript). 16 p. plus appendices.

80-0014 Juhasz, T.A., 1980. Polar Gas Pipeline Survey: ocean current measurement program Lougheed Island to Melville Island, N.W.T. Dobrocky Seatech Ltd. report to the Polar Gas Project. Victoria, B.C. 41 p.

11. LISTING OF MEASUREMENT LOCATIONS AND OTHER PARAMETERS, BY YEAR

This section gives detailed listings of measurement locations and times for each of the data sets plotted on the maps in Section 9. (Drifter data sets whose measurement locations were plotted as shaded areas only are not listed.) There are separate listings for temperature-salinity data, current meter data and water level data. Each listing is ordered by data set number. An explanation of the format appears at the start of each listings. Only data collected within the area of this inventory is listed here; measurements taken elsewhere may be found in the inventories for those areas.

11.1 TEMPERATURE-SALINITY DATA

The listings contain the following information:

AREA
STN — General area of station.
Station number; wherever possible it is the station number assigned in the original data source.

LAT, LONG — In degrees and minutes.

YR — Year
MO — Month
DY — Day
HR — Hour (GMT)

CAST TO — Maximum depth of data, in metres.

WATER DEPTH — In metres, if available.

PARAM MEAS — Parameters measured - conductivity, salinity, temperature. Each parameter measured is qualified by one of the following:
X - measurements of this parameter were made
CA - possible calibration problems
S - suspect readings
C - constant readings over parts of record
O - zero or obviously bad readings

INSTR — Instrument type:
BOT - bottle sample
GLDL - Guideline CTD
AAND - Aanderaa current meter
BECK - Beckman
INTO - Interocean CTD
YSIC - Yellow Springs Instruments Co.
BISS - Bisset Berman STD
AMS - Applied Microsystems CTD
HYT - Hytech induction salinometer

INT(HR) — The time period between repeat stations.
NO — The number of repeat stations.

Blank entries indicate unavailable or inapplicable data.
? implies suspect data, but the only/best data available.

BOTTLE/CTD DATA SET NUMBER: 48-0001
YEAR:1948 VESSEL/AGENCY: EASTWIND

AREA	STN	LAT DEG MIN	LONG DEG MIN	DATE YR MO DY HR	CAST TO (M)	WATER DEPTH (M)	PARAM MEAS C S T	INSTR	INT NO HR
EUREKA SD	12	79?44.0	85?25.0	48 8 29 ?	111	349	X X	BOT	

BOTTLE/CTD DATA SET NUMBER: 52-0003
YEAR:1952 VESSEL/AGENCY: EDISTO

AREA	STN	LAT DEG MIN	LONG DEG MIN	DATE YR MO DY HR	CAST TO (M)	WATER DEPTH (M)	PARAM MEAS C S T	INSTR	INT NO HR
NORWEG BAY	48	76 18.0	88 46.0	52 8 19 16	150	182	X X	BOT	
NORWEG BAY	47	76 59.0	89 30.0	52 8 19 11	250	292	X X	BOT	
NORWEG BAY	46	77 47.0	89 22.0	52 8 19 6	300	310	X X	BOT	
EUREKA SD	45	78 25.0	88 10.0	52 8 19 3	145	329	X X	BOT	
EUREKA SD	42	79 59.0	85 57.0	52 8 17 17	50	64	X X	BOT	
EUREKA SD	44	79 1.0	85 28.0	52 8 18 21	97	118	X X	BOT	
EUREKA SD	43	79 54.0	86 38.0	52 8 18 15	300	347	X X	BOT	

BOTTLE/CTD DATA SET NUMBER: 54-0001
YEAR:1954 VESSEL/AGENCY: LABRADOR

AREA	STN	LAT DEG MIN	LONG DEG MIN	DATE YR MO DY HR	CAST TO (M)	WATER DEPTH (M)	PARAM MEAS C S T	INSTR	INT NO HR
WELL.CHAN.	42	74 44.0	93 16.0	54 8 18 18	100	155	X X	BOT	
WELL.CHAN.	43	74 44.0	92 52.0	54 8 18 19	75	115	X X	BOT	
WELL.CHAN.	44	74 43.0	92 17.0	54 8 18 21	50	97	X X	BOT	
BYAM CH.	53	75 07.0	104 54.0	54 8 25 2	75	50	X X	BOT	
BYAM CH.	53	75 10.0	105 33.0	54 8 25 4	150	150	X X	BOT	
BYAM CH.	54	74 59.0	105 14.0	54 8 25 6	100	119	X X	BOT	

BOTTLE/CTD DATA SET NUMBER: 57-0003
YEAR:1957 VESSEL/AGENCY: LABRADOR

AREA	STN	LAT DEG MIN	LONG DEG MIN	DATE YR MO DY HR	CAST TO (M)	WATER DEPTH (M)	PARAM MEAS C S T	INSTR	INT HR	NO
WELL.CH.	66	74 40.0	92 30.0	57 8 28 17	100	132	X X	BOT		
WELL.CH.	67	74 39.0	92 58.0	57 8 28 18	150	152	X X	BOT		
WELL.CH.	68	74 39.0	93 31.0	57 8 28 19	150	177	X X	BOT		
WELL.CH.	107	75 2.0	93 17.0	57 9 15 1	250	265	X X	BOT		
WELL.CH.	108	75 3.0	92 48.0	57 9 15 2	150	159	X X	BOT		
WELL.CH.	109	75 5.0	92 30.0	57 9 15 3	100	132	X X	BOT		
WELL.CH.	110	75 23.0	93 20.0	57 9 15 7	200	238	X X	BOT		
WELL.CH.	111	75 24.0	93 2.0	57 9 15 8	150	150	X X	BOT		
WELL.CH.	112	75 24.0	92 36.0	57 9 15 10	100	137	X X	BOT		
WELL.CH.	113	75 36.0	93 18.0	57 9 15 12	200	230	X X	BOT		
QUEENS CH.	114	75 36.0	94 12.0	57 9 15 15	50	68	X X	BOT		
QUEENS CH.	115	75 44.0	95 0.0	57 9 15 16	100	112	X X	BOT		
QUEENS CH.	116	75 51.0	95 16.0	57 9 15 17	30	51	X X	BOT		
QUEENS CH.	117	75 58.0	95 28.0	57 9 15 18	75	88	X X	BOT		
QUEENS CH.	118	76 6.0	95 36.0	57 9 15 20	150	165	X X	BOT		
QUEENS CH.	119	76 14.0	95 37.0	57 9 15 21	50	68	X X	BOT		
QUEENS CH.	120	76 12.0	96 16.0	57 9 15 22	200	229	X X	BOT		
PENNY ST.	121	76 10.0	96 59.0	57 9 15 23	121	137	X X	BOT		
PENNY ST.	122	76 29.0	96 43.0	57 9 16 01	150	176	X X	BOT		
QUEENS CH.	123	76 40.0	97 5.0	57 9 16 16	250	276	X X	BOT		
WELL. CH	124	76?41.0	97?47.0	57 9 16 22	100	104	X	BOT		
	125	75 56.0	93 47.0	57 9 17 02	250	293	X X	BOT		

BOTTLE/CTD DATA SET NUMBER: 60-0005
YEAR:1960 VESSEL/AGENCY: LABRADOR

AREA	STN	LAT DEG MIN	LONG DEG MIN	DATE YR MO DY HR	CAST TO (M)	WATER DEPTH (M)	PARAM MEAS C S T	INSTR	INT HR	NO
WELL.CH.	6	74 41.5	93 14.0	60 8 30 13	75	146	X X	BOT		
WELL.CH.	7	74 41.5	93 05.0	60 8 30 14	100	146	X X	BOT		
WELL.CH.	8	74 41.0	92 38.0	60 8 30 15	75	123	X X	BOT		
WELL.CH.	9	74 40.0	92 12.0	60 8 30 17	75	119	X X	BOT		

BOTTLE/CTD DATA SET NUMBER: 60-0007
YEAR:1960 VESSEL/AGENCY: POLAR SHELF

AREA	STN	LAT		LONG		DATE				CAST TO (M)	WATER DEPTH (M)	PARAM MEAS			INSTR	INT HR	NO
		DEG	MIN	DEG	MIN	YR	MO	DY	HR			C	S	T			
PEARY CH.	5	79	46.5	101	14.0	60	4	29	20	500	527		X	X	BOT		
PEARY CH.	6	79	51.5	100	34.0	60	4	30	19	530	534		X	X	BOT		
PR. GUSTAF	1	78	44.5	103	30.0	60	4	18	20	180	184		X	X	BOT		
ARCTIC OC.	2	79	25.0	105	56.0	60	4	23	20	140	143		X	X	BOT		
PEARY CH.	3	79	25.5	104	4.0	60	4	26	3	330	331		X	X	BOT		
PEARY CH.	4	79	35.5	102	53.0	60	4	28	9	380	387		X	X	BOT		
PEARY CH.	5	79	46.5	101	14.0	60	4	29	20	500	527		X	X	BOT		
PEARY CH.	6	79	51.5	100	34.0	60	4	30	19	530	534		X	X	BOT		
SVRDRP CH.	7	80	4.5	97	10.0	60	4	30	19	190	192		X	X	BOT		
PR. GUSTAF	8	79	9.5	106	35.0	60	5	4	5	450	458		X	X	BOT		
PR. GUSTAF	9	79	0.5	107	30.0	60	5	18	0	440	444		X	X	BOT		
PR. GUSTAF	10	78	50.0	108	44.0	60	5	19	7	490	492		X	X	BOT		
PR. GUSTAF	11	78	48.5	109	39.0	60	5	20	9	470	472		X	X	BOT		
WILKINS ST.	12	78	18.5	114	25.0	60	5	23	4	340	344		X	X	BOT		
BLLNTYNE	13	77	51.5	115	36.0	60	5	23	8	160	166		X	X	BOT		
ARCTIC OC.	14	80	42.0	112	50.0	60	5	30	10	1200	1239		X	X	BOT		
ARCTIC OC.	15	80	12.0	109	45.0	60	5	30	17	490	499		X	X	BOT		
ARCTIC OC.	16	79	37.5	106	54.0	60	5	30	23	330	340		X	X	BOT		
ARCTIC OC.	17	79	52.0	108	20.0	60	5	31	22	480	487		X	X	BOT		

BOTTLE/CTD DATA SET NUMBER: 61-0003
YEAR:1961 VESSEL/AGENCY: MACDONALD

AREA	STN	LAT DEG	LAT MIN	LONG DEG	LONG MIN	DATE YR	MO	DY	HR	CAST TO (M)	WATER DEPTH (M)	PARAM MEAS C	S	T	INSTR	INT HR	NO
NORWEG.BY.	2	77	24.00	89	30.00	61	08	24	05	75	95			X	BOT		
NORWEG.BY.	3	77	02.00	89	39.00	61	08	24	13	200	285			X	BOT		
SOPHIA CH.	4	75	53.00	95	08.00	61	08	28	20	50	55			X	BOT	1	24
WELL.CH.	28	75	25.00	95	35.00	61	08	30	02	123	132			X	BOT		
WELL.CH.	29	75	24.00	93	02.00	61	08	30	03	148	161			X	BOT		
WELL.CH.	30	75	23.00	93	26.00	61	08	30	05	200	250			X	BOT		
BYAM CH.	31	75	11.00	105	22.50	61	09	03	01	50	70			X	BOT		
BYAM CH.	32	75	10.40	105	39.50	61	09	03	03	50	55			X	BOT		
BYAM CH.	33	75	08.80	105	01.90	61	09	03	04	150	160			X	BOT		
AUSTIN CH.	34	75	05.30	103	22.50	61	09	03	13	100	100			X	BOT		
AUSTIN CH.	35	75	04.60	102	31.00	61	09	03	15	100	121			X	BOT		
AUSTIN CH.	36	75	05.00	101	40.00	61	09	03	18	100	112			X	BOT		
AUSTIN CH.	37	75	04.50	100	55.00	61	09	03	20	75	75			X	BOT		
WELL.CH.	38	75	25.00	92	35.00	61	09	09	13	100	146	X		X	BOT		
WELL.CH.	39	75	24.00	93	02.00	61	09	09	14	150	176	X		X	BOT		
WELL.CH.	40	75	23.00	93	26.00	61	09	09	16	148	272	X		X	BOT		
NANSEN SD	1	80	27.0	87	23.5	61	8	22	17	394	713	X		X	BOT		

BOTTLE/CTD DATA SET NUMBER: 61-0004
YEAR:1961 VESSEL/AGENCY: LABRADOR

AREA	STN	LAT DEG	LAT MIN	LONG DEG	LONG MIN	DATE YR	MO	DY	HR	CAST TO (M)	WATER DEPTH (M)	PARAM MEAS C	S	T	INSTR	INT HR	NO
WELL.CH.	25	74	41.00	93	14.00	61	09	07	16	100	128		X	X	BOT		
WELL.CH.	26	74	41.00	92	52.00	61	09	07	17	100	137		X	X	BOT		
WELL.CH.	27	74	41.00	92	32.00	61	09	07	18	125	144		X	X	BOT		
WELL.CH.	28	74	41.00	92	10.00	61	09	07	20	100	130		X	X	BOT		
WELL.CH.	29	74	41.00	91	55.00	61	09	07	21	125	141		X	X	BOT		

BOTTLE/CTD DATA SET NUMBER: 61-0005
YEAR:1961 VESSEL/AGENCY: POLAR SHELF

AREA	STN	LAT DEG MIN	LONG DEG MIN	DATE YR MO DY HR	CAST TO (M)	WATER DEPTH (M)	PARAM MEAS C S T	INSTR	INT HR	NO
EUREKA SD	5	78 36.4	87 28.0	61 5 8 21	250	253	X X	BOT		

BOTTLE/CTD DATA SET NUMBER: 61-0009
YEAR:1961 VESSEL/AGENCY: P.O.G.

AREA	STN	LAT DEG MIN	LONG DEG MIN	DATE YR MO DY HR	CAST TO (M)	WATER DEPTH (M)	PARAM MEAS C S T	INSTR	INT HR	NO
PR.GUSTAF	1	78 28.00	105 16.00	61 04 13 22	456	478	X X	BOT		
PR.GUSTAF	2	78 47.00	105 31.00	61 04 25 21	300	298	X X	BOT		
PR.GUSTAF	3	78 35.00	105 28.00	61 04 30 03	425	403	X X	BOT		
PR.GUSTAF	4	78 28.00	105 16.00	61 05 03 21	462	478	X X	BOT		

BOTTLE/CTD DATA SET NUMBER: 62-0005
YEAR:1962 VESSEL/AGENCY: ARCTIC UNIT

AREA	STN	LAT DEG	LAT MIN	LONG DEG	LONG MIN	DATE YR	DATE MO	DATE DY	DATE HR	CAST TO (M)	WATER DEPTH (M)	PARAM MEAS C	PARAM MEAS S	PARAM MEAS T	INSTR	INT HR	NO
EUREKA SD	15	79	55.0	85	20.0	62	8	11	0	47	48		X	X	BOT		
MASSEY SD	7	79	10.0	92	0.0	62	7	18	21	50	57		X	X	BOT		
EUREKA SD	1	80	0.0	86	0.0	62	7	2	22	50	59		X	X	BOT		
EUREKA SD	2	80	0.0	86	0.0	62	7	6	15	50	70		X	X	BOT		
EUREKA SD	3	80	0.0	86	0.0	62	7	9	20	50	56		X	X	BOT		
EUREKA SD	5	80	0.0	86	0.0	62	7	13	21	50	56		X	X	BOT		
EUREKA SD	6	80	0.0	86	0.0	62	7	16	15	50	59		X	X	BOT		
EUREKA SD	8	80	0.0	86	0.0	62	7	21	20	50	59		X	X	BOT		
EUREKA SD	9	80	0.0	86	0.0	62	7	25	15	50	66		X	X	BOT		
EUREKA SD	10	80	0.0	86	0.0	62	7	28	20	50	56		X	X	BOT		
EUREKA SD	11	80	0.0	86	0.0	62	7	31	6	50	56		X	X	BOT		
EUREKA SD	12	80	0.0	86	0.0	62	8	4	0	50	51		X	X	BOT		
EUREKA SD	13	80	0.0	86	0.0	62	8	6	15	50	63		X	X	BOT		
EUREKA SD	14	80	0.0	86	0.0	62	8	10	1	50	66		X	X	BOT		
EUREKA SD	16	80	0.0	86	0.0	62	8	13	22	50	69		X	X	BOT		
EUREKA SD	17	80	0.0	86	0.0	62	8	16	18	48	50		X	X	BOT		
NANSEN SD	4	81	3.0	91	25.0	62	7	11	6	25	29		X	X	BOT		
PENNY ST.	4	76	36.70	96	23.80	62	07	17	03	60	?		X	X	BOT		

BOTTLE/CTD DATA SET NUMBER: 62-0006
YEAR:1962 VESSEL/AGENCY: MACDONALD

AREA	STN	LAT		LONG		DATE				CAST TO (M)	WATER DEPTH (M)	PARAM MEAS			INSTR	INT HR	NO
		DEG	MIN	DEG	MIN	YR	MO	DY	HR			C	S	T			
JONES SD	29	76	23.0	89	22.0	62	8	15	15	150	181		X	X	BOT		
EUREKA SD	40	78	9.0	88	8.0	62	8	25	15	200	249		X	X	BOT		
EUREKA SD	39	79	17.0	84	40.0	62	8	25	6	200	227		X	X	BOT		
GREELY FD	32	81	0.0	79	0.0	62	8	23	17	275	300		X	X	BOT		
GREELY FD	33	80	42.0	80	0.0	62	8	23	20	350	369		X	X	BOT		
GREELY FD	31	80	25.0	85	0.0	62	8	22	16	600	658		X	X	BOT		
EUREKA SD	38	80	10.0	87	3.0	62	8	24	23	600	618		X	X	BOT		
NANSEN SD	37	80	36.0	88	50.0	62	8	24	19	700	732		X	X	BOT		
NANSEN SD	35	81	10.0	90	37.0	62	8	24	10	700	713		X	X	BOT		
NANSEN SD	34	81	13.0	91	15.0	62	8	24	8	700	786		X	X	BOT		
NANSEN SD	36	81	6.0	91	30.0	62	8	24	12	600	701		X	X	BOT		
WELL.CH.	10	74	40.0	92	00.0	62	08	07	07	100	121		X	X	BOT		
WELL.CH.	11	74	40.0	92	43.0	62	08	07	08	150	157		X	X	BOT		
WELL.CH.	12	74	40.0	92	21.0	62	08	07	10	100	135		X	X	BOT		
NORWEG.BY.	30	77	05.0	89	38.0	62	08	15	20	300	348		X	X	BOT		
NORWEG.BY.	41	77	40.0	92	10.0	62	08	25	20	350	379		X	X	BOT		
BELCHER CH.	42	77	15.0	97	14.0	62	08	26	10	150	192		X	X	BOT		
PENNY ST.	43	76	57.0	97	44.0	62	08	26	13	200	234		X	X	BOT		
PENNY ST.	44	76	53.0	98	24.0	62	08	26	14	250	311		X	X	BOT		
PENNY ST.	45	76	48.0	99	00.0	62	08	26	16	450	460		X	X	BOT		
WELL.CH.	46	75	25.0	92	46.0	62	08	27	04	150	194		X	X	BOT		
WELL.CH.	47	75	23.0	93	26.0	62	08	27	06	250	252		X	X	BOT		
AUSTIN CH.	48	75	06.0	101	07.0	62	08	28	13	100	132		X	X	BOT		
AUSTIN CH.	49	75	04.0	102	15.0	62	08	28	15	100	130		X	X	BOT		
AUSTIN CH.	50	75	03.0	103	27.0	62	08	28	18	100	137		X	X	BOT		
KELLETT ST	55	75	22.0	118	05.0	62	08	31	01	250	256		X	X	BOT		

BOTTLE/CTD DATA SET NUMBER: 63-0010
YEAR:1963 VESSEL/AGENCY: DEF. RES. EST. OTTAWA

AREA	STN	LAT DEG	LAT MIN	LONG DEG	LONG MIN	DATE YR	MO	DY	HR	CAST TO (M)	WATER DEPTH (M)	PARAM MEAS C	S	T	INSTR	INT	NO HR	NO
GREELY FD	6	80	56.7	76	0.0	63	6	3	1	57	60	X	X		BOT			
GREELY FD	5	80	50.1	78	14.0	63	6	1	21	238	238	X	X		BOT			
GREELY FD	4	80	54.8	79	7.0	63	6	1	4	137	154	X	X		BOT			
GREELY FD	7	80	49.6	79	23.0	63	6	6	4	128	128	X	X		BOT			
GREELY FD	19	81	26.0	76	58.0	63	6	29	21	119	122	X	X		BOT			
GREELY FD	30	81	25.4	76	59.0	63	8	16	23	60	62	X	X		BOT			
GREELY FD	1	81	23.7	77	10.0	63	5	26	22	183	203	X	X		BOT			
GREELY FD	2	81	18.1	77	51.0	63	5	28	17	46	59	X	X		BOT			
GREELY FD	10	81	18.1	77	51.0	63	6	9	12	46	59	X	X		BOT			
GREELY FD	18	81	25.5	77	2.0	63	6	27	18	183	199	X	X		BOT			
GREELY FD	20	81	24.0	77	1.0	63	6	30	21	82	84	X	X		BOT			
GREELY FD	21	81	23.2	77	9.0	63	7	7	22	53	55	X	X		BOT			
GREELY FD	22	81	24.2	77	10.0	63	7	9	20	104	106	X	X		BOT			
GREELY FD	23	81	24.0	77	14.0	63	7	10	0	177	180	X	X		BOT			
GREELY FD	24	81	23.0	77	3.0	63	7	11	21	60	61	X	X		BOT			
GREELY FD	25	81	22.0	77	14.0	63	7	11	23	29	31	X	X		BOT			
GREELY FD	26	81	22.5	77	18.0	63	7	13	21	130	131	X	X		BOT			
GREELY FD	27	81	23.3	77	15.0	63	7	14	0	227	228	X	X		BOT			
GREELY FD	28	81	24.2	77	8.0	63	7	15	1	79	81	X	X		BOT			
GREELY FD	29	81	24.6	77	5.0	63	8	16	16	18	62	X	X		BOT			
GREELY FD	31	81	24.2	77	1.0	63	8	18	17	110	112	X	X		BOT			
GREELY FD	32	81	23.8	77	7.0	63	8	18	21	142	159	X	X		BOT			
GREELY FD	3	81	11.8	78	31.0	63	5	30	0	183	227	X	X		BOT			
GREELY FD	8	81	11.8	78	31.0	63	6	6	10	183	227	X	X		BOT			
GREELY FD	9	81	8.8	79	14.0	63	6	8	1	46	73	X	X		BOT			
GREELY FD	11	80	41.0	86	55.0	63	6	13	0	183	183	X	X		BOT			

BOTTLE/CTD DATA SET NUMBER: 64-0004
YEAR:1964 VESSEL/AGENCY: MACDONALD

AREA	STN	LAT DEG	LAT MIN	LONG DEG	LONG MIN	DATE YR	MO	DY	HR	CAST TO (M)	WATER DEPTH (M)	PARAM MEAS C	S	T	INSTR	INT HR	NO
BYAM CH.	5	75	4.0	105	22.0	64	08	28	22	250	303	X	X		BOT		
BYAM CH.	9	75	0.0	105	26.0	64	09	3	23	200	223	X	X		BOT		

BOTTLE/CTD DATA SET NUMBER: 64-0005
YEAR:1964 VESSEL/AGENCY: DEF. RES. EST. OTTAWA

AREA	STN	LAT DEG	LAT MIN	LONG DEG	LONG MIN	DATE YR	MO	DY	HR	CAST TO (M)	WATER DEPTH (M)	PARAM MEAS C	S	T	INSTR	INT HR	NO
PR.GUSTAF	1	78	45.00	104	51.00	64	02	03	01	225	224	X	X		BOT		
PR.GUSTAF	2	78	45.00	104	51.00	64	02	10	00	225	224	X	X		BOT		
PR.GUSTAF	3	78	45.00	104	51.00	64	02	19	00	225	224	X	X		BOT		

BOTTLE/CTD DATA SET NUMBER: 64-0008
YEAR:1964 VESSEL/AGENCY: DEF. RES. EST. OTTAWA

AREA	STN	LAT DEG	LAT MIN	LONG DEG	LONG MIN	DATE YR	MO	DY	HR	CAST TO (M)	WATER DEPTH (M)	PARAM MEAS C	S	T	INSTR	INT HR	NO
GREELY FD	32	81	26.1	76	59.7	64	7	29	11	50	64	X		X	BOT		
GREELY FD	1	81	24.6	77	8.0	64	5	8	5	50	65	X		X	BOT		
GREELY FD	4	81	24.6	77	8.0	64	5	15	9	50	65	X		X	BOT		
GREELY FD	10	81	24.1	77	17.0	64	5	24	8	170	231	X		X	BOT		
GREELY FD	14	81	24.1	77	17.0	64	5	31	9	100	231	X		X	BOT		
GREELY FD	19	81	24.1	77	17.0	64	6	7	12	100	231	X		X	BOT		
GREELY FD	20	81	24.1	77	17.0	64	6	15	6	100	231	X		X	BOT		
GREELY FD	21	81	24.1	77	17.0	64	6	22	11	100	231	X		X	BOT		
GREELY FD	22	81	24.1	77	17.0	64	6	29	12	202	231	X		X	BOT		
GREELY FD	23	81	24.1	77	17.0	64	6	29	21	231	231	X		X	BOT		
GREELY FD	24	81	24.1	77	17.0	64	6	30	2	100	231	X		X	BOT		
GREELY FD	25	81	24.1	77	17.0	64	6	30	14	100	231	X		X	BOT		
GREELY FD	26	81	24.3	77	16.9	64	7	3	16	75	78	X		X	BOT		
GREELY FD	27	81	23.9	77	15.3	64	7	3	19	200	225	X		X	BOT		
GREELY FD	28	81	23.5	77	12.1	64	7	3	23	60	65	X		X	BOT		
GREELY FD	29	81	22.8	77	6.4	64	7	4	2	30	43	X		X	BOT		
GREELY FD	30	81	24.1	77	17.0	64	7	6	17	200	231	X		X	BOT		
GREELY FD	31	81	22.6	77	4.8	64	7	22	9	50	63	X		X	BOT		
GREELY FD	33	81	24.0	77	13.4	64	8	5	14	100	192	X		X	BOT		
GREELY FD	34	81	25.4	77	.3	64	8	5	17	75	79	X		X	BOT		
GREELY FD	36	81	25.3	77	.6	64	8	25	8	100	153	X		X	BOT		
GREELY FD	2	81	0.0	79	20.0	64	5	12	11	145	145	X		X	BOT		
GREELY FD	3	80	40.5	80	31.0	64	5	14	7	316	316	X		X	BOT		
NANSEN SD	5	80	42.2	86	48.0	64	5	19	17	355	355	X		X	BOT		
NANSEN SD	18	80	58.0	89	40.0	64	6	7	1	596	597	X		X	BOT		
NANSEN SD	7	81	4.0	84	50.0	64	5	21	19	101	127	X		X	BOT		
NANSEN SD	6	81	1.1	85	42.0	64	5	21	10	199	199	X		X	BOT		
NANSEN SD	9	81	12.2	85	48.0	64	5	23	14	501	502	X		X	BOT		
NANSEN SD	8	81	8.8	86	9.0	64	5	22	18	504	505	X		X	BOT		
NANSEN SD	11	81	3.9	87	1.0	64	5	24	18	506	552	X		X	BOT		
NANSEN SD	12	81	23.4	89	57.0	64	5	29	20	356	357	X		X	BOT		
NANSEN SD	13	81	18.1	90	28.0	64	5	30	17	158	158	X		X	BOT		
NANSEN SD	15	81	34.2	92	35.0	64	6	2	8	291	292	X		X	BOT		
NANSEN SD	16	81	28.5	93	6.0	64	6	2	15	506	507	X		X	BOT		
NANSEN SD	17	81	34.0	93	10.0	64	6	3	16	404	405	X		X	BOT		
GREELY FD	35	81	25.8	77	2.4	64	8	18	15	100	100	X		X	BOT		

BOTTLE/CTD DATA SET NUMBER: 65-0005
YEAR:1965 VESSEL/AGENCY: DEF. RES. EST. OTTAWA

AREA	STN	LAT DEG	LAT MIN	LONG DEG	LONG MIN	DATE YR	DATE MO	DATE DY	DATE HR	CAST TO (M)	WATER DEPTH (M)	PARAM MEAS C	PARAM MEAS S	PARAM MEAS T	INSTR	INT HR	NO
GREELY FD	22	80	57.3	75	54.0	65	6	2	22	75	96		X	X	BOT		
GREELY FD	20	80	53.5	76	37.0	65	5	27	16	50	61		X	X	BOT		
GREELY FD	18	80	34.3	77	59.0	65	5	25	23	102	112		X	X	BOT		
GREELY FD	21	80	51.5	77	55.0	65	5	27	22	304	372		X	X	BOT		
GREELY FD	8	80	47.8	79	10.0	65	5	14	16	203	265		X	X	BOT		
GREELY FD	19	80	34.1	79	36.5	65	5	26	22	152	171		X	X	BOT		
GREELY FD	1	81	22.9	77	17.0	65	5	11	20	202	229		X	X	BOT		
GREELY FD	2	81	21.9	77	15.0	65	5	11	23	77	90		X	X	BOT		
GREELY FD	3	81	23.8	77	19.0	65	5	12	2	146	170		X	X	BOT		
GREELY FD	23	81	24.0	77	5.0	65	6	7	1	100	108		X	X	BOT		
GREELY FD	24	81	24.0	77	5.0	65	6	14	20	100	108		X	X	BOT		
GREELY FD	25	81	24.0	77	5.0	65	6	22	19	100	108		X	X	BOT		
GREELY FD	26	81	24.0	77	5.0	65	6	29	19	100	108		X	X	BOT		
GREELY FD	27	81	23.0	77	20.0	65	8	16	1	100	138		X	X	BOT		
GREELY FD	4	81	14.2	78	8.0	65	5	12	23	152	170		X	X	BOT		
GREELY FD	5	81	2.0	78	57.0	65	5	13	16	203	296		X	X	BOT		
GREELY FD	6	81	13.8	78	5.0	65	5	13	19	51	66		X	X	BOT		
GREELY FD	7	81	15.1	78	13.0	65	5	13	22	152	196		X	X	BOT		
GREELY FD	9	80	32.9	81	13.5	65	5	15	20	406	422		X	X	BOT		
GREELY FD	10	80	23.8	84	11.5	65	5	16	16	500	526		X	X	BOT		
NANSEN FD	11	80	41.3	86	53.5	65	5	17	1	406	406		X	X	BOT		
NANSEN FD	13	81	10.0	82	43.0	65	5	20	13	76	88		X	X	BOT		
NANSEN FD	14	81	5.2	83	22.0	65	5	20	19	152	169		X	X	BOT		
NANSEN FD	12	81	15.5	85	26.0	65	5	19	19	406	419		X	X	BOT		
NANSEN FD	16	81	1.6	85	41.0	65	5	21	15	151	187		X	X	BOT		
NANSEN FD	17	81	13.9	85	50.0	65	5	21	18	406	447		X	X	BOT		
NANSEN FD	15	81	4.0	86	55.0	65	5	20	22	200	258		X	X	BOT		

BOTTLE/CTD DATA SET NUMBER: 66-0010
YEAR:1966 VESSEL/AGENCY: DEF. RES. EST. OTTAWA

AREA	STN	LAT DEG	LAT MIN	LONG DEG	LONG MIN	DATE YR	DATE MO	DATE DY	DATE HR	CAST TO (M)	WATER DEPTH (M)	PARAM MEAS C	PARAM MEAS S	PARAM MEAS T	INSTR	INT HR	NO
GREELY FD	1	80	57.9	75	32.4	66	5	1	17	110	113		X	X	BOT		
GREELY FD	2	81	25.0	76	50.0	66	5	19	20	100	141		X	X	BOT		
GREELY FD	4	81	25.0	76	50.0	66	5	22	21	100	141		X	X	BOT		
GREELY FD	8	81	25.0	76	50.0	66	5	25	18	140	141		X	X	BOT		
GREELY FD	11	81	25.0	76	50.0	66	6	1	2	140	141		X	X	BOT		
GREELY FD	12	81	25.0	76	50.0	66	6	7	2	140	141		X	X	BOT		
GREELY FD	16	81	25.0	76	50.0	66	6	14	17	140	141		X	X	BOT		
GREELY FD	18	81	25.0	76	50.0	66	6	21	20	140	141		X	X	BOT		
GREELY FD	19	81	25.0	76	50.0	66	6	28	20	140	141		X	X	BOT		
GREELY FD	20	81	25.0	76	50.0	66	7	5	18	140	141		X	X	BOT		
GREELY FD	21	81	25.0	76	50.0	66	7	12	17	140	141		X	X	BOT		
GREELY FD	22	81	25.0	76	50.0	66	7	16	15	100	113		X	X	BOT		
GREELY FD	23	81	25.0	76	50.0	66	7	18	15	43	45		X	X	BOT		
GREELY FD	24	81	25.0	76	50.0	66	7	18	17	70	71		X	X	BOT		
GREELY FD	25	81	25.0	76	50.0	66	7	18	19	199	200		X	X	BOT		
NANSEN SD	3	81	2.0	85	37.0	66	5	21	16	150	165		X	X	BOT		
NANSEN SD	6	81	6.4	85	50.0	66	5	25	16	5	9		X	X	BOT		
NANSEN SD	7	81	6.2	85	51.0	66	5	25	17	30	33		X	X	BOT		
NANSEN SD	9	81	6.0	85	52.0	66	5	25	19	30	40		X	X	BOT		
NANSEN SD	10	81	3.0	85	39.0	66	5	29	16	75	133		X	X	BOT		
NANSEN SD	5	81	11.0	86	0.0	66	5	23	19	600	627		X	X	BOT		

BOTTLE/CTD DATA SET NUMBER: 67-0002
YEAR:1967 VESSEL/AGENCY: LABRADOR

AREA	STN	LAT DEG	LAT MIN	LONG DEG	LONG MIN	DATE YR	DATE MO	DATE DY	DATE HR	CAST TO (M)	WATER DEPTH (M)	PARAM MEAS C	PARAM MEAS S	PARAM MEAS T	INSTR	INT NO HR
EUREKA SD	18	79	58.8	85	56.8	67	8	26	17	50	?		X	X	BOT	
EUREKA SD	39	79	52.0	86	34.0	67	9	1	2	50	?		X	X	BOT	
EUREKA SD	40	79	52.0	86	47.0	67	9	1	2	50	?		X	X	BOT	
EUREKA SD	41	79	52.0	87	2.0	67	9	1	2	50	?		X	X	BOT	
GREELY FD	33	80	30.8	84	13.0	67	8	30	17	50	?		X	X	BOT	
GREELY FD	34	80	25.5	84	5.0	67	8	30	17	50	?		X	X	BOT	
GREELY FD	35	80	20.4	84	12.0	67	8	30	18	50	?		X	X	BOT	
GREELY FD	32	80	32.0	85	43.0	67	8	30	15	50	?		X	X	BOT	
GREELY FD	36	80	26.5	85	48.0	67	8	30	19	50	?		X	X	BOT	
GREELY FD	37	80	22.5	85	15.0	67	8	30	20	50	?		X	X	BOT	
GREELY FD	38	80	17.5	85	15.0	67	8	31	22	50	?		X	X	BOT	
NANSEN SD	14	80	46.3	86	37.0	67	8	25	14	50	?		X	X	BOT	
EUREKA SD	19	80	.3	86	57.0	67	8	27	21	50	?		X	X	BOT	
EUREKA SD	20	80	1.1	86	54.0	67	8	27	22	50	?		X	X	BOT	
EUREKA SD	21	80	1.1	86	54.0	67	8	27	23	400	466		X	X	BOT	
EUREKA SD	22	80	2.0	86	42.0	67	8	27	23	50	?		X	X	BOT	
EUREKA SD	23	80	14.0	86	40.0	67	8	30	1	48	?		X	X	BOT	
NANSEN SD	29	80	41.2	86	55.0	67	8	30	13	50	?		X	X	BOT	
NANSEN SD	30	80	41.2	86	50.0	67	8	30	13	50	?		X	X	BOT	
NANSEN SD	31	80	41.2	86	41.0	67	8	30	13	50	?		X	X	BOT	
NANSEN SD	15	80	37.0	87	14.0	67	8	25	16	47	612		X	X	BOT	
NANSEN SD	16	80	31.5	87	31.0	67	8	25	23	50	?		X	X	BOT	
EUREKA SD	17	80	13.0	87	7.0	67	8	26	13	47	?		X	X	BOT	
EUREKA SD	24	80	14.3	87	5.0	67	8	30	2	50	?		X	X	BOT	
EUREKA SD	25	80	14.2	87	28.0	67	8	30	2	50	?		X	X	BOT	
NANSEN SD	27	80	33.2	87	51.0	67	8	30	11	50	841		X	X	BOT	
NANSEN SD	28	80	38.5	87	38.0	67	8	30	11	50	?		X	X	BOT	
NANSEN SD	26	80	28.0	88	4.0	67	8	30	10	50	?		X	X	BOT	
NANSEN SD	13	80	43.8	89	23.0	67	8	25	10	700	746		X	X	BOT	
NORWEG BY.	11	77	00.00	89	46.00	67	08	22	19	200	237		X	X	BOT	
NORWEG BY.	12	78	06.10	88	12.00	67	08	23	22	297	305		X	X	BOT	
NORWEG BY.	42	78	06.00	88	12.00	67	09	01	13	50	?		X	X	BOT	
WELL.CH.	62	74	56.5	92	33.0	67	09	9	14	150	164		X	X	BOT	
WELL.CH.	63	74	56.5	92	33.0	67	09	9	14	50	164		X	X	BOT	
WELL.CH.	64	74	57.00	92	14.00	67	09	09	15	50	148		X	X	BOT	
WELL.CH.	65	74	54.20	93	12.00	67	09	09	17	48	212		X	X	BOT	

BOTTLE/CTD DATA SET NUMBER: 67-0005
YEAR:1967 VESSEL/AGENCY: DEF. RES. EST. OTTAWA

AREA	STN	LAT DEG	LAT MIN	LONG DEG	LONG MIN	DATE YR	DATE MO	DATE DY	DATE HR	CAST TO (M)	WATER DEPTH (M)	PARAM MEAS C	PARAM MEAS S	PARAM MEAS T	INSTR	INT HR	NO
GREELY FD	1	80	57.5	75	34.0	67	4	19	13	65	68		X	X	BOT		
GREELY FD	44	81	24.0	76	55.0	67	7	19	16	20	34		X	X	BOT		
GREELY FD	45	81	24.0	76	55.0	67	7	22	20	20	22		X	X	BOT		
GREELY FD	46	81	24.0	76	55.0	67	7	25	1	10	14		X	X	BOT		
GREELY FD	47	81	24.0	76	55.0	67	8	1	13	15	18		X	X	BOT		
GREELY FD	48	81	24.0	76	55.0	67	8	11	17	25	25		X	X	BOT		
GREELY FD	49	81	24.0	76	55.0	67	8	20	18	20	24		X	X	BOT		
EUREKA SD	12	80	9.2	86	52.0	67	5	28	16	200	?		X	X	BOT		
NANSEN SD	24	81	2.7	85	31.0	67	6	3	19	150	153		X	X	BOT		
NANSEN SD	28	81	2.7	85	31.0	67	6	9	19	150	154		X	X	BOT		
NANSEN SD	38	81	1.4	85	34.0	67	6	25	19	190	192		X	X	BOT		
NANSEN SD	40	81	7.6	85	58.5	67	6	28	19	75	85		X	X	BOT		
NANSEN SD	42	81	2.7	85	31.0	67	7	8	17	150	154		X	X	BOT		
NANSEN SD	2	81	3.5	87	2.0	67	5	20	5	100	550		X	X	BOT		

BOTTLE/CTD DATA SET NUMBER: 68-0001
YEAR:1968 VESSEL/AGENCY: LABRADOR

AREA	STN	LAT DEG	LAT MIN	LONG DEG	LONG MIN	DATE YR	DATE MO	DATE DY	DATE HR	CAST TO (M)	WATER DEPTH (M)	PARAM MEAS C	PARAM MEAS S	PARAM MEAS T	INSTR	INT HR	NO
NORWEG.BAY	6	77	28.0	89	13.0	68	8	18	17	300	?		X	X	BOT		
NORWEG.BAY	7	76	53.6	89	49.0	68	8	20	1	125	?		X	X	BOT		
WELL.CH.	19	74	50.8	92	44.0	68	9	8	19	75	?		X	X	BOT		
WELL.CH.	20	74	45.0	92	44.0	68	9	8	16	75	?		X	X	BOT		

BOTTLE/CTD DATA SET NUMBER: 69-0014
YEAR:1969 VESSEL/AGENCY: FROZEN SEA RES.

AREA	STN	LAT DEG	LAT MIN	LONG DEG	LONG MIN	DATE YR	DATE MO	DATE DY	DATE HR	CAST TO (M)	WATER DEPTH (M)	PARAM MEAS C	PARAM MEAS S	PARAM MEAS T	INSTR	INT HR	NO
GREELY FD	101	80	35.0	79	32.0	69	3	?	?	187	?	X		X	GLDL		
GREELY FD	102	80	35.0	79	26.0	69	3	?	?	506	?	X		X	GLDL		
GREELY FD	103	80	35.0	79	32.0	69	3	?	?	510	?	X		X	GLDL		

BOTTLE/CTD DATA SET NUMBER: 69-0015
YEAR:1969 VESSEL/AGENCY: FROZEN SEA RES.

AREA	STN	LAT DEG	LAT MIN	LONG DEG	LONG MIN	DATE YR	MO	DY	HR	CAST TO (M)	WATER DEPTH (M)	PARAM MEAS C	S	T	INSTR	INT HR	NO
GREELY FD	1	80	36.0	80	0.0	69	8	12	?	20	?		X	X	BOT		
GREELY FD	1	80	36.0	80	0.0	69	8	17	?	35	?		X	X	BOT		
GREELY FD	1	80	36.0	80	0.0	69	8	23	?	35	?		X	X	BOT		
GREELY FD	1	80	36.0	80	0.0	69	9	5	?	35	?		X	X	BOT		
GREELY FD	1	80	36.0	80	0.0	69	9	19	?	5	?		X	X	BOT		

BOTTLE/CTD DATA SET NUMBER: 70-0017
YEAR:1970 VESSEL/AGENCY: FROZEN SEA RES.

AREA	STN	LAT DEG	LAT MIN	LONG DEG	LONG MIN	DATE YR	MO	DY	HR	CAST TO (M)	WATER DEPTH (M)	PARAM MEAS C	S	T	INSTR	INT HR	NO
GREELY FD	1	80	36.0	79	33.0	70	3	12	?	110	142	X		X	GLDL		
GREELY FD	1	80	36.0	79	33.0	70	4	6	?	110	142	X		X	GLDL		
GREELY FD	2	80	33.5	79	32.5	70	3	14	?	300	384	X		X	GLDL		
GREELY FD	3	80	34.75	79	42.5	70	3	15	?	150	174	X		X	GLDL		
GREELY FD	3	80	34.75	79	42.5	70	3	19	?	150	174	X		X	GLDL		
GREELY FD	3	80	34.75	79	42.5	70	3	29	?	150	174	X		X	GLDL		
GREELY FD	4	80	35.0	80	33.0	70	3	20	?	500	604	X		X	GLDL		
GREELY FD	4	80	35.0	80	33.0	70	3	29	?	500	604	X		X	GLDL		
GREELY FD	5	80	29.5	81	17.0	70	3	20	?	400	521	X		X	GLDL		
GREELY FD	5	80	29.5	81	17.0	70	3	21	?	350	521	X		X	GLDL		
GREELY FD	6	80	36.42	81	21.0	70	3	22	?	350	415	X		X	GLDL		
GREELY FD	6	80	36.42	81	21.0	70	3	28	?	350	415	X		X	GLDL		
GREELY FD	7	80	33.67	81	30.0	70	3	22	?	400	521	X		X	GLDL		
GREELY FD	8	80	29.0	82	7.5	70	3	24	?	400	567	X		X	GLDL		
GREELY FD	8	80	29.0	82	7.5	70	3	28	?	400	567	X		X	GLDL		
GREELY FD	9	80	27.42	82	57.5	70	3	24	?	500	644	X		X	GLDL		
GREELY FD	9	80	27.42	82	57.5	70	3	27	?	500	644	X		X	GLDL		
GREELY FD	10	80	28.42	84	45.0	70	3	26	?	500	640	X		X	GLDL		
GREELY FD	11	80	35.0	79	7.0	70	3	30	?	400	485	X		X	GLDL		

BOTTLE/CTD DATA SET NUMBER: 71-0015
YEAR:1971 VESSEL/AGENCY: FROZEN SEA RES.

AREA	STN	LAT DEG	LAT MIN	LONG DEG	LONG MIN	DATE YR	DATE MO	DATE DY	DATE HR	CAST TO (M)	WATER DEPTH (M)	PARAM MEAS C	PARAM MEAS S	PARAM MEAS T	INSTR	INT HR	NO
GREELY FD	1	80	34.75	79	29.0	71	3	17	22	415	476	X		X	GLDL		
GREELY FD	1	80	34.75	79	29.0	71	3	18	16	412	476	X		X	GLDL		
GREELY FD	1	80	34.75	79	29.0	71	3	18	21	405	476	X		X	GLDL		
GREELY FD	1	80	34.75	79	29.0	71	3	19	21	343	476	X		X	GLDL		
GREELY FD	1	80	34.75	79	29.0	71	3	30	19	411	476	X		X	GLDL		
GREELY FD	1	80	34.75	79	29.0	71	3	30	20	150	476	X		X	GLDL		
GREELY FD	1	80	34.75	79	29.0	71	3	30	20	152	476	X		X	GLDL		
GREELY FD	1	80	34.75	79	29.0	71	3	30	21	150	476	X		X	GLDL		
GREELY FD	1	80	34.75	79	29.0	71	3	30	21	150	476	X		X	GLDL		
GREELY FD	1	80	34.75	79	29.0	71	3	30	21	412	476	X		X	GLDL		
GREELY FD	1	80	34.75	79	29.0	71	3	30	22	150	476	X		X	GLDL		
GREELY FD	1	80	34.75	79	29.0	71	3	31	16	454	476	X		X	GLDL		
GREELY FD	1	80	34.75	79	29.0	71	3	31	20	410	476	X		X	GLDL		
GREELY FD	1	80	34.75	79	29.0	71	3	31	21	152	476	X		X	GLDL		
GREELY FD	1	80	34.75	79	29.0	71	3	31	21	152	476	X		X	GLDL		
GREELY FD	1	80	34.0	78	5.0	71	3	31	21	170	197	X		X	GLDL		

BOTTLE/CTD DATA SET NUMBER: 73-0006
YEAR:1973 VESSEL/AGENCY: INST. OC. SC.

AREA	STN	LAT DEG	LAT MIN	LONG DEG	LONG MIN	DATE YR	DATE MO	DATE DY	DATE HR	CAST TO (M)	WATER DEPTH (M)	PARAM MEAS C	PARAM MEAS S	PARAM MEAS T	INSTR	INT HR	NO
WELL.CH.	1	74	47.0	93	11.0	73	04	23	20	136	?	X		X	GLDL		
WELL.CH.	2	74	47.0	92	58.0	73	04	23	20	150	?	X		X	GLDL		
WELL.CH.	3	74	47.0	92	43.0	73	04	23	21	133	?	X		X	GLDL		
WELL.CH.	4	74	47.0	92	31.0	73	04	23	21	105	?	X		X	GLDL		
WELL.CH.	5	74	47.0	92	19.0	73	04	23	22	78	?	X		X	GLDL		

BOTTLE/CTD DATA SET NUMBER: 73-0008
YEAR:1973 VESSEL/AGENCY: SIR WILLIAM ALEXANDER (IOS)

AREA	STN	LAT DEG MIN	LONG DEG MIN	DATE YR MO DY HR	CAST TO (M)	WATER DEPTH (M)	PARAM MEAS C S T	INSTR	INT HR	NO
WELL.CH.	6	74 48.0	92 06.0	73 08 28 19	65	?	X X	GLDL		
WELL.CH.	7	74 48.0	92 25.0	73 08 28 19	99	?	X X	GLDL		
WELL.CH.	8	74 48.0	92 45.0	73 08 28 20	118	?	X X	GLDL		
WELL.CH.	9	74 48.0	93 05.0	73 08 28 20	162	?	X X	GLDL		
WELL.CH.	10	74 48.0	93 18.0	73 08 28 21	118	?	X X	GLDL		

BOTTLE/CTD DATA SET NUMBER: 73-0013
YEAR:1973 VESSEL/AGENCY: FROZEN SEA RES.

AREA	STN	LAT DEG MIN	LONG DEG MIN	DATE YR MO DY HR	CAST TO (M)	WATER DEPTH (M)	PARAM MEAS C S T	INSTR	INT HR	NO
GREELY FD	703	80 35.5	79 34.0	73 03 31 17	160	166	X X	GLDL		
GREELY FD	710	80 35.5	79 34.0	73 04 02 17	160	166	X X	GLDL		
GREELY FD	710	80 35.5	79 34.0	73 04 02 17	160	166	X X	GLDL		
GREELY FD	710	80 35.5	79 34.0	73 04 02 17	160	166	X X	GLDL		
GREELY FD	711	80 35.5	79 34.0	73 04 02 22	160	166	X X	GLDL		
GREELY FD	713	80 35.5	79 34.0	73 04 03 17	160	166	X X	GLDL		
GREELY FD	716	80 34.0	79 33.0	73 04 04 21	496	519	X X	GLDL		
GREELY FD	718	80 35.5	79 34.0	73 04 05 17	151	166	X X	GLDL		
GREELY FD	719	80 35.5	79 34.0	73 04 06 16	159	166	X X	GLDL		
GREELY FD	719	80 35.5	79 34.0	73 04 06 17	160	166	X X	GLDL		
GREELY FD	722	80 35.0	78 18.0	73 04 06 22	179	184	X X	GLDL		
GREELY FD	720	80 35.5	79 34.0	73 04 07 16	160	166	X X	GLDL		
GREELY FD	720	80 35.5	79 34.0	73 04 07 17	161	166	X X	GLDL		
GREELY FD	721	80 35.5	79 34.0	73 04 07 20	161	166	X X	GLDL		
GREELY FD	721	80 35.5	79 34.0	73 04 08 00	78	166	X X	GLDL		
GREELY FD	723	80 35.0	78 42.0	73 04 07 17	166	384	X X	GLDL		
GREELY FD	724	80 35.0	78 42.0	73 04 07 18	146	384	X X	GLDL		
GREELY FD	728	80 35.5	79 34.0	73 04 09 17	161	166	X X	GLDL		
GREELY FD	748	80 34.0	80 28.0	73 04 15 17	501	601	X X	GLDL		
GREELY FD	749	80 34.0	80 28.0	73 04 15 20	300	601	X X	GLDL		
GREELY FD	757	80 35.5	79 34.0	73 04 16 16	159	166	X X	GLDL		
GREELY FD	759	80 35.5	79 34.0	73 04 16 21	160	166	X X	GLDL		
GREELY FD	766	80 35.5	79 34.0	73 04 18 21	158	166	X X	GLDL		
GREELY FD	770	80 35.5	79 34.0	73 04 20 17	160	166	X X	GLDL		
GREELY FD	711	80 35.5	79 34.0	73 04 21 17	160	166	X X	GLDL		

BOTTLE/CTD DATA SET NUMBER: 74-0018
YEAR:1974 VESSEL/AGENCY: PANARCTIC

AREA	STN	LAT DEG	LAT MIN	LONG DEG	LONG MIN	DATE YR	DATE MO	DATE DY	DATE HR	CAST TO (M)	WATER DEPTH (M)	PARAM MEAS C	PARAM MEAS S	PARAM MEAS T	INSTR	INT HR	NO
MACLEAN ST	3	78	00.00	101	15.00	74	07	08	?	58	262	X		X	?		
MACLEAN ST	4	77	49.00	100	47.00	74	07	08	?	58	230	X		X	?		
MACLEAN ST	7	78	05.00	101	06.00	74	07	08	?	58	60	X		X	?		

BOTTLE/CTD DATA SET NUMBER: 74-0025
YEAR:1974 VESSEL/AGENCY: FROZEN SEA RES.

AREA	STN	LAT DEG	LAT MIN	LONG DEG	LONG MIN	DATE YR	DATE MO	DATE DY	DATE HR	CAST TO (M)	WATER DEPTH (M)	PARAM MEAS C	PARAM MEAS S	PARAM MEAS T	INSTR	INT HR	NO
GREELY FD	910	80	34.7	79	25.0	74	3	30	21	403	519	X		X	GLDL		
GREELY FD	913	80	34.7	79	25.0	74	3	31	15	504	519	X		X	GLDL		
GREELY FD	923	80	34.4	79	42.0	74	4	1	19	182	203	X		X	GLDL		
GREELY FD	934	80	34.7	79	25.0	74	2	16	?	434	519	X		X	GLDL		
GREELY FD	936	80	34.6	79	12.5	74	4	2	20	443	493	X		X	GLDL		
GREELY FD	937	80	34.8	78	19.2	74	4	5	1	153	199	X		X	GLDL		
GREELY FD	940	80	35.5	78	43.0	74	4	5	21	306	?	X		X	GLDL		
GREELY FD	963	80	34.7	79	25.0	74	4	9	19	509	519	X		X	GLDL		
GREELY FD	1050	80	34.2	80	16.2	74	8	23	?	484	510	X		X	GLDL		
GREELY FD	1052	80	34.7	80	4.7	74	8	23	?	150	250	X		X	GLDL		
GREELY FD	1053	80	36.0	79	36.7	74	8	23	?	402	435	X		X	GLDL		
GREELY FD	1054	80	33.5	80	11.5	74	8	25	?	405	399	X		X	GLDL		
GREELY FD	1055	80	33.2	80	5.5	74	8	25	?	206	220	X		X	GLDL		
GREELY FD	1056	80	33.1	79	52.5	74	8	25	?	202	222	X		X	GLDL		
GREELY FD	1057	80	35.9	79	31.0	74	8	25	?	421	501	X		X	GLDL		

BOTTLE/CTD DATA SET NUMBER: 75-0016
YEAR:1975 VESSEL/AGENCY: PANARCTIC

AREA	STN	LAT DEG MIN	LONG DEG MIN	DATE YR MO DY HR	CAST TO (M)	WATER DEPTH (M)	PARAM MEAS C S T	INSTR	INT HR	NO
HAZEN ST	1.1	76 34.0	113 28.0	75 06 19 ?	340	355	X X	AAND		
HAZEN ST	1.2	76 34.0	113 28.0	75 07 02 ?	340	355	X X	AAND		
HAZEN ST	1.3	76 34.0	113 28.0	75 07 19 ?	340	355	X X	AAND		
HAZEN ST	1.4	76 34.0	113 28.0	75 ? ? ?	9	355	X X	INTO		
HAZEN ST	2	76 47.0	112 27.0	75 ? ? ?	8	390	X X	INTO		
FITZWILL.S	3	76 36.0	114 15.0	75 ? ? ?	8	320	X X	INTO		
FITZWILL.S	4	76 44.0	115 25.0	75 ? ? ?	8	305	X X	INTO		
FITZWILL.S	5	76 33.0	115 47.0	75 ? ? ?	8	335	X X	INTO		

BOTTLE/CTD DATA SET NUMBER: 75-0017
YEAR:1975 VESSEL/AGENCY: PANARCTIC

AREA	STN	LAT DEG MIN	LONG DEG MIN	DATE YR MO DY HR	CAST TO (M)	WATER DEPTH (M)	PARAM MEAS C S T	INSTR	INT HR	NO
E.SAB PEN	6.1	76 24.60	107 20.83	75 05 09 ?	350	355	X X	?		
E.SAB PEN	6.2	76 24.60	107 20.83	75 05 09 ?	10	355	X X	?		
E.SAB PEN	7	76 27.95	107 20.58	75 05 09 ?	350	357	X X	?		

BOTTLE/CTD DATA SET NUMBER: 75-0018
YEAR:1975 VESSEL/AGENCY: PANARCTIC

AREA	STN	LAT DEG MIN	LONG DEG MIN	DATE YR MO DY HR	CAST TO (M)	WATER DEPTH (M)	PARAM MEAS C S T	INSTR	INT HR	NO
HAZEN ST	8	77 00.0	110 30.0	75 02 23 ?	10	433	X X	INTO		
DESBARATS	9	76 50.0	106 00.0	75 01 30 ?	10	155	X X	INTO		
MACLEAN ST	10	77 20.0	102 30.0	75 02 06 ?	10	229	X X	INTO		

BOTTLE/CTD DATA SET NUMBER: 75-0019
YEAR:1975 VESSEL/AGENCY: PANARCTIC

AREA	STN	LAT DEG MIN	LONG DEG MIN	DATE YR MO DY HR	CAST TO (M)	WATER DEPTH (M)	PARAM MEAS C S T	INSTR	INT HR	NO
E.SAB PEN	11.1	76 24.67	107 48.78	75 03 04 ?	36	?	X X	BECK		
E.SAB PEN	11.2	76 24.67	107 48.78	75 03 09 ?	132	?	X X	BECK	2	12

BOTTLE/CTD DATA SET NUMBER: 75-0020
YEAR:1975 VESSEL/AGENCY: PANARCTIC

AREA	STN	LAT DEG MIN	LONG DEG MIN	DATE YR MO DY HR	CAST TO (M)	WATER DEPTH (M)	PARAM MEAS C S T	INSTR	INT HR	NO
HEC.& GR.B	1.1	76 21.92	110 53.08	75 12 06 ?	150	?	X X	AAND		
HEC.& GR.B	1.2	76 21.92	110 53.08	76 02 11 ?	160	?	X X	AAND		
HEC.& GR.B	2.1	76 24.90	111 11.22	76 01 15 ?	380	?	X X	AAND		

BOTTLE/CTD DATA SET NUMBER: 75-0021
YEAR:1976 VESSEL/AGENCY: PANARCTIC

AREA	STN	LAT DEG MIN	LONG DEG MIN	DATE YR MO DY HR	CAST TO (M)	WATER DEPTH (M)	PARAM MEAS C S T	INSTR	INT HR	NO
MACLEAN ST	3.1	78 05.37	101 50.67	76 02 03 ?	50	60	X X	AAND		
MACLEAN ST	3.2	78 05.37	101 50.67	76 04 20 ?	50	60	X X	AAND		

BOTTLE/CTD DATA SET NUMBER: 75-0022
YEAR:1976 VESSEL/AGENCY: PANARCTIC

AREA	STN	LAT DEG MIN	LONG DEG MIN	DATE YR MO DY HR	CAST TO (M)	WATER DEPTH (M)	PARAM MEAS C S T	INSTR	INT HR	NO
PR GUSTAF	7	78 30.0	107 00.0	76 03 28 ?	350	385	X X	AAND		
HAZEN ST	8	77 00.0	110 30.0	76 04 09 ?	257	325	X X	AAND		
MACLEAN STR	9	77 20.0	102?30.0	76 03 24 ?	220	226	X X	AAND		

BOTTLE/CTD DATA SET NUMBER: 75-0023
YEAR:1975 VESSEL/AGENCY: PANARCTIC

AREA	STN	LAT DEG MIN	LONG DEG MIN	DATE YR MO DY HR	CAST TO (M)	WATER DEPTH (M)	PARAM MEAS C S T	INSTR	INT HR	NO
E.SAB PEN	12	78 05.77	101 06.83	75 07 16 18	50	55	X X	BECK		
E.SAB PEN	13	78 05.37	101 05.00	75 07 11 18	40	45	X X	BECK		
E.SAB PEN	14	78 04.32	101 06.37	75 07 10 18	70	75	X X	BECK		
E.SAB PEN	15	78 05.37	101 08.66	75 07 16 13	60	65	X X	BECK		

BOTTLE/CTD DATA SET NUMBER: 75-0039
YEAR:1975 VESSEL/AGENCY: FROZEN SEA RES.

AREA	STN	LAT DEG	LAT MIN	LONG DEG	LONG MIN	DATE YR	DATE MO	DATE DY	DATE HR	CAST TO (M)	WATER DEPTH (M)	PARAM MEAS C	PARAM MEAS S	PARAM MEAS T	INSTR	INT HR	NO
GREELY FD	1060	80	34.8	79	28.0	75	3	28	17	420	534	X		X	GLDL		
GREELY FD	1061	80	34.0	78	9.0	75	4	6	18	170	170	X		X	GLDL		
GREELY FD	1062	80	34.8	78	28.0	75	4	3	20	500	534	X		X	GLDL		
GREELY FD	1063	80	34.7	78	7.0	75	4	6	22	195	196	X		X	GLDL		
GREELY FD	1064	80	35.0	79	45.0	75	4	7	21	200	214	X		X	GLDL		
GREELY FD	1065	80	35.5	78	6.0	75	4	7	17	165	168	X		X	GLDL		
GREELY FD	1066	80	35.2	80	16.0	75	4	8	21	450	500	X		X	GLDL		
GREELY FD	1067	80	35.5	78	15.0	75	4	8	15	180	200	X		X	GLDL		
GREELY FD	1068	80	35.2	80	7.0	75	4	10	18	330	369	X		X	GLDL		
GREELY FD	1070	80	35.7	79	56.0	75	4	10	20	210	241	X		X	GLDL		
GREELY FD	1071	80	34.8	78	32.0	75	4	8	17	270	282	X		X	GLDL		
GREELY FD	1073	80	34.8	78	48.0	75	4	8	20	380	420	X		X	GLDL		
GREELY FD	1074	80	35.7	79	28.0	75	4	12	16	415	534	X		X	GLDL		
GREELY FD	1075	80	34.5	79	12.0	75	4	8	22	425	455	X		X	GLDL		
GREELY FD	1076	80	35.7	79	28.0	75	4	12	17	500	534	X		X	GLDL		

BOTTLE/CTD DATA SET NUMBER: 76-0014
YEAR:1976 VESSEL/AGENCY: PANARCTIC

AREA	STN	LAT DEG	LAT MIN	LONG DEG	LONG MIN	DATE YR	DATE MO	DATE DY	DATE HR	CAST TO (M)	WATER DEPTH (M)	PARAM MEAS C	PARAM MEAS S	PARAM MEAS T	INSTR	INT HR	NO
HEC.& GR.B	2.2	76	24.90	111	11.22	76	02	10	?	280	?	X		X	AAND		
HEC.& GR.B	2.3	76	24.90	111	11.22	76	04	04	?	60	?	X		X	AAND		

BOTTLE/CTD DATA SET NUMBER: 76-0016
YEAR:1976 VESSEL/AGENCY: OC. & AQ. SC., CENTRAL REGION

AREA	STN	LAT DEG MIN	LONG DEG MIN	DATE YR MO DY HR	CAST TO (M)	WATER DEPTH (M)	PARAM MEAS C	S	T	INSTR	INT HR	NO
PENNY ST	12.1	76 41.5	97 07.0	76 04 13 17	155	187	X		X	AAND	1	14
PENNY ST	12.2	76 41.5	97 07.0	76 04 20 19	183	187	X		X	AAND		
PENNY ST	14.1	76 38.5	97 23.8	76 04 16 16	210	260	X		X	AAND	1	14
PENNY ST	14.2	76 38.5	97 23.8	76 04 20 18	210	260	X		X	AAND		
PENNY ST	11.1	76 42.8	96 58.7	76 04 18 15	200	192	X		X	AAND		
PENNY ST	11.2	76 42.8	96 58.7	76 04 20 20	183	192	X		X	AAND		
PENNY ST	12.3	76 41.5	97 07.0	76 04 18 16	200	187	X		X	AAND		
PENNY ST	15.1	76 36.3	97 28.5	76 04 20 15	155	157	X		X	AAND		
PENNY ST	16.1	76 31.4	97 42.8	76 04 20 15	210	225	X		X	AAND		
PENNY ST	16.2	76 31.4	97 42.8	76 04 21 20	210	225	X		X	AAND		
PENNY ST	15.2	76 36.3	97 28.5	76 04 20 16	100	108	X		X	AAND		
PENNY ST	13	76 39.8	97 16.6	76 04 20 18	210	220	X		X	AAND		
PENNY ST	13	76 39.8	97 16.6	76 04 20 23	210	220	X		X	AAND		
BELCHER C	21	77 26.0	95 53.1	76 04 24 19	56	59	X		X	AAND		
BELCHER C	22	77 24.0	95 57.0	76 04 24 20	100	68	X		X	AAND		
BELCHER C	23	77 18.3	96 1.8	76 04 24 21	125	127	X		X	AAND		
BELCHER C	24	77 14.5	96 5.9	76 04 24 22	200	220	X		X	AAND		
BELCHER C	25	77 7.9	96 13.0	76 04 24 23	175	180	X		X	AAND		
BELCHER C	26	77 3.6	96 17.7	76 04 25 00	200	200	X		X	AAND		

BOTTLE/CTD DATA SET NUMBER: 76-0017
YEAR:1976 VESSEL/AGENCY: FROZEN SEA RES.

AREA	STN	LAT DEG MIN	LONG DEG MIN	DATE YR MO DY HR	CAST TO (M)	WATER DEPTH (M)	PARAM MEAS C	S	T	INSTR	INT HR	NO
BYAM CH	4	75 26.75	104 46.53	76 04 29 21	140	150	X		X	GLDL	1	2
AUSTIN CH	5	75 30.27	103 01.43	76 05 03 22	220	240	X		X	GLDL	1	21
AUSTIN CH	6	75 31.37	102 50.35	76 05 04 22	?	54	X		X	GLDL		

BOTTLE/CTD DATA SET NUMBER: 76-0018
YEAR:1976 VESSEL/AGENCY: FROZEN SEA RES.

AREA	STN	LAT DEG MIN	LONG DEG MIN	DATE YR MO DY HR	CAST TO (M)	WATER DEPTH (M)	PARAM MEAS C S T	INSTR	INT HR	NO
GREELY FD	2010	80 34.7	79 29.0	76 3 8 20	474	495	X X	GLDL		
GREELY FD	2015	80 35.5	78 44.0	76 3 14 20	350	375	X X	GLDL		
GREELY FD	2017	80 34.0	78 5.0	76 3 15 14	100	113	X X	GLDL		
GREELY FD	2019	80 35.0	78 19.0	76 3 15 21	190	210	X X	GLDL		
GREELY FD	2021	80 34.0	80 20.0	76 3 22 14	525	562	X X	GLDL		
GREELY FD	2023	80 30.0	81 45.0	76 3 23 14	470	492	X X	GLDL		
GREELY FD	2024	80 26.0	82 46.0	76 3 24 14	580	620	X X	GLDL		
GREELY FD	2025	80 29.0	84 24.0	76 3 25 1	650	696	X X	GLDL		
GREELY FD	2026	80 28.0	86 0.0	76 3 26 17	650	680	X X	GLDL		
NANSEN SD	2028	80 29.0	86 42.0	76 3 27 14	578	627	X X	GLDL		
NANSEN SD	2029	80 22.0	86 47.0	76 3 29 14	329	366	X X	GLDL		
EUREKA SD	2031	80 1.0	86 58.0	76 3 30 17	500	530	X X	GLDL		
EUREKA SD	2032	80 0.3	86 49.0	76 3 30 19	500	534	X X	GLDL		
EUREKA SD	2033	80 0.0	86 36.0	76 3 31 14	329	354	X X	GLDL		

BOTTLE/CTD DATA SET NUMBER: 77-0019
YEAR:1977 VESSEL/AGENCY: FROZEN SEA RES.

AREA	STN	LAT DEG MIN	LONG DEG MIN	DATE YR MO DY HR	CAST TO (M)	WATER DEPTH (M)	PARAM MEAS C S T	INSTR	INT HR	NO
GREELY FD	2301	80 36.2	79 31.2	77 3 4 21	231	231	X X	GLDL		
GREELY FD	2302	80 34.8	78 12.5	77 3 16 22	110	118	X X	GLDL		
GREELY FD	2303	80 35.7	78 23.8	77 3 17 5	182	186	X X	GLDL		
GREELY FD	2304	80 36.0	78 30.0	77 3 17 20	159	165	X X	GLDL		
GREELY FD	2305	80 35.0	78 38.0	77 3 17 23	242	247	X X	GLDL		
GREELY FD	2306	80 33.5	80 30.0	77 3 21 21	237	241	X X	GLDL		
GREELY FD	2307	80 33.7	79 51.8	77 3 22 1	180	190	X X	GLDL		
GREELY FD	2308	80 35.3	78 53.8	77 3 24 19	365	369	X X	GLDL		
GREELY FD	2309	80 34.8	79 9.5	77 3 24 23	479	480	X X	GLDL		
GREELY FD	2310	80 34.2	79 35.3	77 3 26 1	513	513	X X	GLDL		
GREELY FD	2311	80 34.7	79 22.5	77 3 27 19	450	464	X X	GLDL		

BOTTLE/CTD DATA SET NUMBER: 77-0022
YEAR:1977 VESSEL/AGENCY: PANARCTIC

AREA	STN	LAT DEG MIN	LONG DEG MIN	DATE YR MO DY HR	CAST TO (M)	WATER DEPTH (M)	PARAM MEAS C S T	INSTR	INT HR	NO
HEC.& GR.B	1.1	76 17.0	111 21.0	77 03 23 14	?	?	X X	AAND		
HEC.& GR.B	1.2	76 17.0	111 21.0	77 04 16 10	280	?	X X	AAND		
HEC.& GR.B	1.3	76 17.0	111 21.0	77 05 01 14	290	?	X X	AAND		

BOTTLE/CTD DATA SET NUMBER: 77-0024
YEAR:1978 VESSEL/AGENCY: PANARCTIC

AREA	STN	LAT DEG MIN	LONG DEG MIN	DATE YR MO DY HR	CAST TO (M)	WATER DEPTH (M)	PARAM MEAS C S T	INSTR	INT HR	NO
HAZEN ST	1.1	76 24.0	113 11.0	78 01 16 00	200	232	X X	GLDL	4	10
HAZEN ST	1.2	76 24.0	113 11.0	78 04 22 20	200	232	X X	GLDL	4	13

BOTTLE/CTD DATA SET NUMBER: 77-0025
YEAR:1978 VESSEL/AGENCY: PANARCTIC

AREA	STN	LAT DEG MIN	LONG DEG MIN	DATE YR MO DY HR	CAST TO (M)	WATER DEPTH (M)	PARAM MEAS C S T	INSTR	INT HR	NO
HAZEN ST	2.1	76 43.0	109 46.0	78 01 11 03	150	165	X X	GLDL	4	13
HAZEN ST	2.2	76 43.0	109 46.0	78 04 07 20	150	165	X X	GLDL	4	13

BOTTLE/CTD DATA SET NUMBER: 77-0026
YEAR:1977 VESSEL/AGENCY: FROZEN SEA RES.

AREA	STN	LAT DEG	LAT MIN	LONG DEG	LONG MIN	DATE YR	MO	DY	HR	CAST TO (M)	WATER DEPTH (M)	PARAM MEAS C	S	T	INSTR	INT HR	NO
CROZIER ST.	C1	75	31.6	97	22.2	77	03	28	22	60	62	X		X	GLDL		
CROZIER ST.	C2	75	31.5	97	19.8	77	03	30	22	50	52	X		X	GLDL		
CROZIER ST.	C3	75	30.5	97	10.4	77	04	13	3	89	92	X		X	GLDL		
CROZIER ST.	C4	75	30.3	97	08.0	77	04	10	22	280	286	X		X	GLDL		
CROZIER ST.	C5	75	30.0	97	05.1	77	04	07	20	4	317	X			GLDL		
CROZIER ST.	C6	75	29.8	97	02.9	77	04	03	20	270	271	X		X	GLDL	1	13
PULLEN ST.	P3	75	26.5	96	05.9	77	04	21	21	50	54	X		X	GLDL		

BOTTLE/CTD DATA SET NUMBER: 78-0007
YEAR:1978 VESSEL/AGENCY: OC.&AQ.SC, CENTRAL REGION

AREA	STN	LAT DEG	LAT MIN	LONG DEG	LONG MIN	DATE YR	MO	DY	HR	CAST TO (M)	WATER DEPTH (M)	PARAM MEAS C	S	T	INSTR	INT HR	NO
MCDOUG SD	31	75	7.71	96	39.30	78	04	06	19	120	126	X		X	GLDL		
MCDOUG SD	32	75	7.65	97	6.57	78	04	06	20	170	175	X		X	GLDL		
MCDOUG SD	33	75	6.80	97	32.70	78	04	06	18	58	61	X		X	GLDL		
AUSTIN CH	91	75	12.90	100	44.09	78	04	14	16	90	96	X		X	GLDL		
AUSTIN CH	92	75	11.65	101	5.50	78	04	14	16	150	155	X		X	GLDL		
AUSTIN CH	93	75	09.96	101	34.26	78	04	14	17	125	132	X		X	GLDL		
AUSTIN CH	94	75	08.11	102	40.90	78	04	14	17	98	107			X	GLDL		
AUSTIN CH	95	75	7.48	102	59.55	78	04	14	18	135	147			X	GLDL		
AUSTIN CH	96	75	6.80	103	25.80	78	04	14	18	93	97			X	GLDL		
BYAM CH	86	75	17.60	105	35.21	78	04	14	20	74	77			X	GLDL		
BYAM CH	85	75	15.90	105	15.50	78	04	14	21	73	77			X	GLDL		
BYAM CH	84	75	14.70	104	56.94	78	04	14	21	220	225			X	GLDL		

BOTTLE/CTD DATA SET NUMBER: 78-0012
YEAR:1978 VESSEL/AGENCY: FROZEN SEA RES.

AREA	STN	LAT DEG	LAT MIN	LONG DEG	LONG MIN	DATE YR	DATE MO	DATE DY	DATE HR	CAST TO (M)	WATER DEPTH (M)	PARAM MEAS C	PARAM MEAS S	PARAM MEAS T	INSTR	INT HR	NO
CROZIER ST	C5	75	29.97	97	5.08	78	03	19	17	307	310	X		X	GLDL		
CROZIER ST	C5	75	29.97	97	5.08	78	03	19	20	300	310	X		X	GLDL		
CROZIER ST	C5	75	29.97	97	5.08	78	03	19	?	300	310	X		X	GLDL		
CROZIER ST	C6	75	24.0	97	6.0	78	03	23	4	360	369	X		X	GLDL		
PULLEN ST	P1	75	24.62	96	21.35	78	03	24	4	35	54	X		X	GLDL		
PULLEN ST	P2	75	26.83	96	6.17	78	03	25	3	47	48	X		X	GLDL		
WELL.CH	4	75	14.33	92	37.5	78	04	05	15	180	188	X		X	GLDL	1	25
WELL.CH	4	75	14.33	92	37.5	78	04	06	21	180	188	X		X	GLDL		
WELL.CH	4	75	14.33	92	37.5	78	04	17	21	180	188	X		X	GLDL		
WELL.CH	3	75	14.92	92	52.0	78	04	04	17	155	160	X		X	GLDL		
WELL.CH	3	75	14.92	92	52.0	78	04	18	21	155	160	X		X	GLDL		
WELL.CH	2	75	14.83	93	00.5	78	04	21	21	140	146	X		X	GLDL		
WELL.CH	1	75	15.25	93	17.0	78	04	25	15	225	232	X		X	GLDL	1	31

BOTTLE/CTD DATA SET NUMBER: 78-0013
YEAR:1979 VESSEL/AGENCY: PANARCTIC

AREA	STN	LAT DEG	LAT MIN	LONG DEG	LONG MIN	DATE YR	DATE MO	DATE DY	DATE HR	CAST TO (M)	WATER DEPTH (M)	PARAM MEAS C	PARAM MEAS S	PARAM MEAS T	INSTR	INT HR	NO
HAZEN ST	1.1	77	03.26	110	21.16	79	01	03	20	200	225	X		X	GLDL	4	13
HAZEN ST	1.2	77	03.26	110	21.16	79	05	02	04	200	225	X		X	GLDL	4	11

BOTTLE/CTD DATA SET NUMBER: 78-0014
YEAR:1978 VESSEL/AGENCY: PANARCTIC

AREA	STN	LAT DEG	LAT MIN	LONG DEG	LONG MIN	DATE YR	MO	DY	HR	CAST TO (M)	WATER DEPTH (M)	PARAM MEAS C	S	T	INSTR	INT HR	NO
DESBARATS	2.1	76	42.21	105	57.25	78	12	30	03	150	150	X		X	GLDL	4	18
DESBARATS	2.2	76	42.21	105	57.25	79	04	03	22	150	150	X		X	GLDL	4	13

BOTTLE/CTD DATA SET NUMBER: 79-0018
YEAR:1979 VESSEL/AGENCY: PANARCTIC

AREA	STN	LAT DEG	LAT MIN	LONG DEG	LONG MIN	DATE YR	MO	DY	HR	CAST TO (M)	WATER DEPTH (M)	PARAM MEAS C	S	T	INSTR	INT HR	NO
W.LOUGH IS	3.1	77	12.30	106	52.88	79	01	09	11	240	240	X		X	GLDL	4	17
W.LOUGH IS	3.2	77	12.30	106	52.88	79	04	29	12	240	240	X		X	GLDL	4	13

BOTTLE/CTD DATA SET NUMBER: 79-0019
YEAR:1979 VESSEL/AGENCY: OC.&AQ.SC., CENTRAL REGION

AREA	STN	LAT DEG	LAT MIN	LONG DEG	LONG MIN	DATE YR	DATE MO	DATE DY	DATE HR	CAST TO (M)	WATER DEPTH (M)	PARAM MEAS C	PARAM MEAS S	PARAM MEAS T	INSTR	INT HR	NO
DESBARATS	1	77	12.0	106	46.0	79	04	06	23	347	353	X		X	GLDL		
DESBARATS	1	77	12.0	106	46.0	79	04	14	19	347	353	X		X	GLDL	1	14
DESBARATS	21	77	7.2	105	52.0	79	04	08	18	180	192	X		X	GLDL		
DESBARATS	22	77	5.0	106	10.0	79	04	08	19	195	199	X		X	GLDL		
DESBARATS	23.1	76	57.0	107	1.0	79	04	08	21	170	185	X		X	GLDL		
DESBARATS	23.2	76	56.5	107	12.5	79	04	11	0	385	388	X		X	GLDL		
DESBARATS	24.1	76	51.8	107	52.0	79	04	08	23	430	439	X		X	GLDL		
DESBARATS	24.2	76	51.8	107	52.0	79	04	10	23	400	439	X		X	GLDL		
DESBARATS	25	76	48.5	108	18.0	79	04	10	22	395	450	X		X	GLDL		
DESBARATS	11.1	77	0.0	103	45.0	79	04	13	18	165	175	X		X	GLDL		
DESBARATS	11.2	77	0.0	103	48.0	79	4	15	16	145	155	X		X	GLDL		
DESBARATS	11.3	77	0.0	103	48.0	79	4	16	18	145	160	X		X	GLDL		
ARNOT ST.	16	76	17.0	103	48.0	79	04	13	22	64	68	X		X	GLDL		
ARNOT ST.	17	76	16.4	103	49.0	79	04	13	22	90	95	X		X	GLDL		
DESBARATS	15.1	76	43.0	103	53.0	79	04	14	0	260	270	X		X	GLDL		
DESBARATS	15.2	76	43.0	103	53.0	79	4	15	21	285	300	X		X	GLDL		
DESBARATS	15.3	76	43.0	103	53.0	79	4	17	0	260	280	X		X	GLDL		
DESBARATS	14.1	76	47.0	103	52.0	79	04	14	1	315	325	X		X	GLDL		
DESBARATS	14.2	76	47.0	103	52.0	79	4	15	20	300	320	X		X	GLDL		
DESBARATS	14.3	76	47.0	103	52.0	79	4	17	0	300	320	X		X	GLDL		
BYAM M CH	41	76	4.0	104	29.0	79	04	14	17	160	175	X		X	GLDL		
BYAM M CH	42	76	2.0	104	47.0	79	04	14	18	180	190	X		X	GLDL		
BYAM M CH	43	75	59.0	105	8.0	79	04	14	19	140	160	X		X	GLDL		
BYAM M CH	44	75	56.0	105	25.0	79	04	14	20	184	190	X		X	GLDL		
DANISH ST	33	77	48.0	100	53.0	79	04	14	23	200	220	X		X	GLDL		
DANISH ST	32	77	50.0	100	46.0	79	04	15	0	200	210	X		X	GLDL		
DANISH ST	31	77	51.5	100	39.0	79	04	15	1	100	110	X		X	GLDL		
W.LOUGH IS	2	77	22.0	107	14.0	79	4	15	23	280	310	X		X	GLDL		
DESBARATS	12.1	76	55.0	103	49.0	79	4	16	19	185	195	X		X	GLDL		
DESBARATS	12.2	76	55.0	103	49.0	79	4	16	22	185	195	X		X	GLDL		
DESBARATS	13	76	51.0	103	50.0	79	4	16	23	260	270	X		X	GLDL		
MACLEAN ST	38.1	77	27.0	104	30.0	79	4	19	17	290	295	X		X	GLDL		
MACLEAN ST	38.2	77	27.0	104	33.0	79	4	20	22	150	155	X		X	GLDL		
MACLEAN ST	37	77	30.0	103	58.0	79	4	20	23	285	290	X		X	GLDL		
MACLEAN ST	36	77	34.0	103	31.0	79	4	21	0	265	270	X		X	GLDL		
MACLEAN ST	35	77	37.0	102	55.0	79	4	21	3	345	350	X		X	GLDL		
MACLEAN ST	34	77	42.0	102	39.0	79	4	21	4	250	255	X		X	GLDL		
PR.GUSTAF	71.1	78	25.5	105	26.0	79	4	21	18	400	515	X		X	GLDL		
PR.GUSTAF	71.2	78	29.0	105	25.0	79	4	27	22	315	390	X		X	GLDL		
HAZEN ST.	63	77	0.0	109	23.0	79	4	22	21	400	440	X		X	GLDL		
HAZEN ST.	62	77	11.0	109	41.0	79	4	22	22	400	435	X		X	GLDL		
HAZEN ST.	61	77	23.0	110	14.0	79	4	22	23	335	345	X		X	GLDL		
PR.GUSTAF	73	78	27.0	108	47.0	79	4	27	20	260	270	X		X	GLDL		
PR.GUSTAF	72	78	27.0	107	5.0	79	4	27	21	375	377	X		X	GLDL		
EDINB.SEA	51	77	41.0	99	52.0	79	4	28	18	300	320	X		X	GLDL		
EDINB.SEA	52	77	31.0	99	50.0	79	4	28	19	285	300	X		X	GLDL		
EDINB.SEA	53	77	18.5	99	50.0	79	4	28	19	190	210	X		X	GLDL		
EDINB.SEA	54	77	4.0	99	50.0	79	4	28	21	240	255	X		X	GLDL		
EDINB.SEA	55	76	48.0	99	50.0	79	4	28	22	140	160	X		X	GLDL		
WILKINS ST	82	78	9.0	109	48.0	79	4	29	1	360	370	X		X	GLDL		
WILKINS ST	81	78	15.0	109	48.0	79	4	29	2	260	269	X		X	GLDL		

BOTTLE/CTD DATA SET NUMBER: 79-0020
YEAR:1980 VESSEL/AGENCY: PANARCTIC

AREA	STN	LAT DEG	LAT MIN	LONG DEG	LONG MIN	DATE YR	DATE MO	DATE DY	DATE HR	CAST TO (M)	WATER DEPTH (M)	PARAM MEAS C	PARAM MEAS S	PARAM MEAS T	INSTR	INT HR	NO
W.LOUGH IS	1.1	77	12.40	106	53.43	80	01	16	01	275	275	X		X	GLDL	4	14
W.LOUGH IS	1.2	77	12.40	106	53.43	80	04	16	21	275	275	X		X	GLDL	4	16

BOTTLE/CTD DATA SET NUMBER: 79-0022
YEAR:1980 VESSEL/AGENCY: PANARCTIC

AREA	STN	LAT DEG	LAT MIN	LONG DEG	LONG MIN	DATE YR	DATE MO	DATE DY	DATE HR	CAST TO (M)	WATER DEPTH (M)	PARAM MEAS C	PARAM MEAS S	PARAM MEAS T	INSTR	INT HR	NO
EDINB.SEA	2.1	77	37.18	100	22.40	80	01	18	14	236	236	X		X	GLDL	4	12
EDINB.SEA	2.2	77	37.18	100	22.40	80	04	13	17	236	236	X		X	GLDL	4	12
EDINB.SEA	3.1	77	36.50	99	31.13	80	01	20	22	262	262	X		X	GLDL	4	12
EDINB.SEA	3.2	77	36.50	99	31.13	80	04	09	09	262	262	X		X	GLDL	4	12

BOTTLE/CTD DATA SET NUMBER: 81-0007
YEAR:1981 VESSEL/AGENCY: OC.&AQ.SC., CENTRAL REGION

AREA	STN	LAT DEG	LAT MIN	LONG DEG	LONG MIN	DATE YR	DATE MO	DATE DY	DATE HR	CAST TO (M)	WATER DEPTH (M)	PARAM MEAS C	PARAM MEAS S	PARAM MEAS T	INSTR	INT HR	NO
MCDOUG SD	71	75	08.5	97	27.3	81	4	19	22	83	?	X		X	GLDL		
MCDOUG SD	72	75	07.2	97	12.0	81	4	19	22	174	?	X		X	GLDL		
MCDOUG SD	73	75	06.5	96	57.4	81	4	19	23	200	?	X		X	GLDL		
MCDOUG SD	74	75	05.5	96	42.2	81	4	20	00	200	?	X		X	GLDL		
WELL CH	91	74	52.8	93	20.0	81	4	25	23	137	?	X		X	GLDL		
WELL CH	92	74	52.8	93	06.0	81	4	25	22	184	?	X		X	GLDL		
WELL CH	93	74	52.8	92	43.0	81	4	25	22	131	?	X		X	GLDL		
WELL CH	94	74	52.8	92	25.8	81	4	25	21	142	?	X		X	GLDL		
WELL CH	95	74	52.8	92	11.0	81	4	25	21	86	?	X		X	GLDL		

11.2 CURRENT METER DATA

The listings contain the following information:

AREA	General area of station.
STN	Station number; wherever possible it is the station number assigned in the original data source. Multiple meters are differentiated as 1.1, 1.2, 1.3, for example.
LAT, LONG	In degrees and minutes.
START/STOP	Year, month and day instrument recorded over.
EFF LEN	Effective record length, days of both speed and direction data.
DT (MN)	Sampling rate in minutes.
DEPTHS-INSTR/WATER	Instrument and water depth, in metres.
INSTR TYPE	Instrument type: AAND - Aanderaa RCM-4 CUSH - Cushing electromagnetic M-MC - Marsh McBirney electromagnetic ENDE - Endeco HYDR - Hydrowerstatten BR - Braincon type 206 meter GEOD - Geodyne RICH - Richardson
ADDIT SENSOR	Other parameters measured - pressure, temperature, conductivity. Each measurement is qualified by one of the following: X - measurements of this parameter were made CA - possible calibration problems S - suspect readings C - constant readings O - zero or obviously bad readings L - frequent speeds below the stall speed

Blank entries indicate unavailable or inapplicable data.
? implies suspect data, but the only/best available.

CURRENT METER DATA, SET NUMBER: 74-0018
YEAR:1974 VESSEL/AGENCY: BEAK FOR PANARCTIC OIL

AREA	STN	LAT DEG	LAT MIN	LONG DEG	LONG MIN	START YR	START MO	START DY	STOP YR	STOP MO	STOP DY	EFF LEN	DT MN	DEPTHS INST	DEPTHS WATER	INST TYPE	ADDIT SENSOR P	ADDIT SENSOR T	ADDIT SENSOR C
MACLEAN ST	1	78	08.92	101	12.67	74	06	20	74	07	05	00	?	?	135	?			
MACLEAN ST	2	78	07.88	101	40.37	74	06	20	74	07	07	00	?	?	68	?			
MACLEAN ST	3	78	00.00	101	15.00	74	06	20	74	07	08	00	?	?	262	?			
MACLEAN ST	4	77	49.00	100	47.00	74	06	20	74	07	08	00	?	?	230	?			
EDINB SEA	5	77	40.00	99	06.05	74	06	20	74	07	01	00	?	?	175	?			
EDINB SEA	6	77	35.00	101	00.00	74	06	20	74	07	01	00	?	?	349	?			
MACLEAN ST	7.1	78	05.00	101	06.00	74	06	20	74	07	08	00	?	?	60	?			
MACLEAN ST	7.2	78	05.00	101	06.00	74	06	21	74	06	22	01	60	2	60	?			
MACLEAN ST	7.3	78	05.00	101	06.00	74	07	04	74	07	05	01	60	?	60	?			

CURRENT METER DATA, SET NUMBER: 74-0025
YEAR:1974 VESSEL/AGENCY: FROZEN SEA RESEARCH GROUP

AREA	STN	LAT DEG	LAT MIN	LONG DEG	LONG MIN	START YR	START MO	START DY	STOP YR	STOP MO	STOP DY	EFF LEN	DT MN	DEPTHS INST	DEPTHS WATER	INST TYPE	ADDIT SENSOR P	ADDIT SENSOR T	ADDIT SENSOR C
GREELY FD	1	80	34.4	79	44.5	74	04	14	74	07	23	?	60	1	221	AAND			X
GREELY FD	1	80	34.4	79	44.5	74	04	14	74	07	23	?	60	220	221	AAND			X
GREELY FD	2	80	33.6	79	44.5	74	04	17	74	07	23	?	60	1	209	AAND			X
GREELY FD	2	80	33.6	79	44.5	74	04	17	74	07	23	?	60	208	209	AAND			X
GREELY FD	3	80	32.9	79	44.5	74	04	15	74	07	23	?	60	1	354	AAND			X
GREELY FD	3	80	32.9	79	44.5	74	04	15	74	07	23	?	60	353	354	AAND			X

CURRENT METER DATA, SET NUMBER: 75-0016
YEAR:1975 VESSEL/AGENCY: BEAK FOR PANARCTIC OIL

AREA	STN	LAT DEG	LAT MIN	LONG DEG	LONG MIN	START YR	START MO	START DY	STOP YR	STOP MO	STOP DY	EFF LEN	DT MN	DEPTHS INST	DEPTHS WATER	INST TYPE	ADDIT SENSOR P	ADDIT SENSOR T	ADDIT SENSOR C
HAZEN ST	1	76	34.00	113	28.00	75	06	01	75	06	30	10	30	?	355	AAND		X	X
HAZEN ST	2	76	47.00	112	27.00	75	06	03	75	07	20	04	30	5	390	AAND		X	X
FITSW. ST	3	76	36.00	114	15.00	75	06	11	75	07	03	23	30	5	320	AAND		X	X
FITZW.ST.	4	76	44.00	115	25.00	75	06	09	75	07	19	41	30	5	305	AAND		X	X
FITZW.ST.	5	76	33.00	115	47.00	75	06	10	75	07	03	24	30	5	335	AAND		X	X

CURRENT METER DATA, SET NUMBER: 75-0017
YEAR:1975 VESSEL/AGENCY: BEAK FOR PANARCTIC

AREA	STN	LAT DEG	LAT MIN	LONG DEG	LONG MIN	START YR	START MO	START DY	STOP YR	STOP MO	STOP DY	EFF LEN	DT MN	DEPTHS INST	DEPTHS WATER	INST TYPE	ADDIT SENSOR P	ADDIT SENSOR T	ADDIT SENSOR C
E.SAB PEN	6	76	24.60	107	20.83	75	04	17	75	05	08	?	5	?	354	AAND			
E.SAB PEN	7	76	27.95	107	20.58	75	05	08	75	06	17	?	5	?	357	AAND			

CURRENT METER DATA, SET NUMBER: 75-0018
YEAR:1975 VESSEL/AGENCY: BEAK FOR PANARCTIC OIL

AREA	STN	LAT DEG	LAT MIN	LONG DEG	LONG MIN	START YR	START MO	START DY	STOP YR	STOP MO	STOP DY	EFF LEN	DT MN	DEPTHS INST	DEPTHS WATER	INST TYPE	ADDIT SENSOR P	ADDIT SENSOR T	ADDIT SENSOR C
HAZEN ST	8	77	00.00	110	30.00	75	02	09	75	06	23	00	60	5	433	AAND		X	X
DESBARATS	9	76	50.00	106	00.00	75	01	30	75	06	23	145	60	5	155	AAND		X	X
MACLEAN ST	10	77	20.00	102	30.00	75	02	06	75	07	06	00	60	5	229	AAND		X	X

CURRENT METER DATA, SET NUMBER: 75-0019
YEAR:1975 VESSEL/AGENCY: BEAK FOR PANARCTIC OIL

AREA	STN	LAT DEG MIN	LONG DEG MIN	START YR MO DY	STOP YR MO DY	EFF LEN	DT MN	DEPTHS INST	DEPTHS WATER	INST TYPE	ADDIT SENSOR P T C
BYAM M. CH	11	76 24.67	107 48.78	75 03 02	75 04 121	3	60	3	132	CUSH	

CURRENT METER DATA, SET NUMBER: 75-0020
YEAR:1975 VESSEL/AGENCY: BEAK FOR PANARCTIC OIL

AREA	STN	LAT DEG MIN	LONG DEG MIN	START YR MO DY	STOP YR MO DY	EFF LEN	DT MN	DEPTHS INST	DEPTHS WATER	INST TYPE	ADDIT SENSOR P T C
HEC.& GR.B	1	76 21.92	110 53.08	75 12 06	75 12 31	25	?	10	138	AAND	X X

CURRENT METER DATA, SET NUMBER: 75-0022
YEAR:1975 VESSEL/AGENCY: IVL FOR PANARCTIC OIL

AREA	STN	LAT DEG MIN	LONG DEG MIN	START YR MO DY	STOP YR MO DY	EFF LEN	DT MN	DEPTHS INST	DEPTHS WATER	INST TYPE	ADDIT SENSOR P T C
HAZEN ST	8.1	77 00.00	110 30.00	75 12 04	75 12 31	0	?	?	325	CUSH	

CURRENT METER DATA, SET NUMBER: 75-0039
YEAR:1975 VESSEL/AGENCY: FROZEN SEA RESEARCH GROUP

AREA	STN	LAT DEG	LAT MIN	LONG DEG	LONG MIN	START YR	START MO	START DY	STOP YR	STOP MO	STOP DY	EFF LEN	DT MN	DEPTHS INST	DEPTHS WATER	INST TYPE	ADDIT SENSOR P	ADDIT SENSOR T	ADDIT SENSOR C
GREELY FD	1	80	34.4	79	43.7	75	06	09	75	06	21	?	10	220	221	AAND			X
GREELY FD	2	80	33.6	79	44.5	75	06	09	75	06	21	?	10	208	209	AAND			X
GREELY FD	4	80	33.3	79	37.9	75	06	09	75	06	21	?	10	353	354	AAND			X
GREELY FD	1	80	34.4	79	43.7	75	04	01	75	06	15	?	10	213	214	AAND			X

CURRENT METER DATA, SET NUMBER: 75-0020
YEAR:1976 VESSEL/AGENCY: BEAK FOR PANARCTIC OIL

AREA	STN	LAT DEG	LAT MIN	LONG DEG	LONG MIN	START YR	START MO	START DY	STOP YR	STOP MO	STOP DY	EFF LEN	DT MN	DEPTHS INST	DEPTHS WATER	INST TYPE	ADDIT SENSOR P	ADDIT SENSOR T	ADDIT SENSOR C
HEC.& GR.B	1	76	21.92	110	53.08	76	01	01	76	02	27	58	?	10	138	AAND		X	X

CURRENT METER DATA, SET NUMBER: 75-0021
YEAR:1976 VESSEL/AGENCY: BEAK FOR PANARCTIC OIL

AREA	STN	LAT DEG	LAT MIN	LONG DEG	LONG MIN	START YR	START MO	START DY	STOP YR	STOP MO	STOP DY	EFF LEN	DT MN	DEPTHS INST	DEPTHS WATER	INST TYPE	ADDIT SENSOR P	ADDIT SENSOR T	ADDIT SENSOR C
MACLEAN ST	3.1	78	05.37	101	50.67	76	01	13	76	02	04	23	?	5	60	AAND		X	X
MACLEAN ST	3.2	78	05.37	101	50.67	76	02	04	76	03	04	30	?	5	60	AAND		X	X
MACLEAN ST	3.3	78	05.37	101	50.67	76	03	25	76	04	21	28	?	5	60	AAND		X	X
MACLEAN ST	3.4	78	05.37	101	50.67	76	03	08	76	04	20	00	60	5	60	CUSH			
MACLEAN ST	3.5	78	05.37	101	50.67	76	03	08	76	04	20	00	60	21	60	CUSH			
MACLEAN ST	3.6	78	05.37	101	50.67	76	03	08	76	04	20	00	60	40	60	CUSH			
MACLEAN ST	3.7	78	05.37	101	50.67	76	03	08	76	04	20	00	60	50	60	CUSH			

CURRENT METER DATA, SET NUMBER: 75-0022
YEAR:1976 VESSEL/AGENCY: IVL FOR PANARCTIC OIL

AREA	STN	LAT DEG MIN	LONG DEG MIN	START YR MO DY	STOP YR MO DY	EFF LEN	DT MN	DEPTHS INST	WATER	INST TYPE	ADDIT SENSOR P T C
PR GUSTAF	7.1	78 30.00	107 00.00	76 01 01	76 03 28	88	60	?	385	CUSH	
PR GUSTAF	7.2	78 30.00	107 00.00	76 03 31	76 05 29	60	60	?	385	CUSH	
HAZEN ST	8.1	77 00.00	110 30.00	76 01 01	76 04 06	0	?	?	325	CUSH	
HAZEN ST	8.2	77 00.00	110 30.00	76 04 09	76 05 25	47	60	?	325	CUSH	

CURRENT METER DATA, SET NUMBER: 76-0014
YEAR:1976 VESSEL/AGENCY: BEAK FOR PANARCTIC OIL

AREA	STN	LAT DEG MIN	LONG DEG MIN	START YR MO DY	STOP YR MO DY	EFF LEN	DT MN	DEPTHS INST	WATER	INST TYPE	ADDIT SENSOR P T C
HEC.& GR.B	2.1	76 24.90	111 11.22	76 01 15	76 02 12	24	?	10	286	AAND	X X
HEC.& GR.B	2.2	76 24.90	111 11.22	76 02 12	76 04 08	04	?	10	286	AAND	X X
HEC.& GR.B	2.3	76 24.90	111 11.22	76 04 08	76 04 17	00	?	10	286	AAND	X X

CURRENT METER DATA, SET NUMBER: 76-0015
YEAR:1976 VESSEL/AGENCY: IVL FOR PANARCTIC OIL

AREA	STN	LAT DEG MIN	LONG DEG MIN	START YR MO DY	STOP YR MO DY	EFF LEN	DT MN	DEPTHS INST	WATER	INST TYPE	ADDIT SENSOR P T C
ARNOTT ST	4	76 18.	103 28.	76 05 15	76 06 16	00	30	49	40	AAND	X X
ERSKINE IN	5	76 19.	102 13.	76 05 17	76 06 16	31	30	105	150	AAND	X X
ERSKINE IN	6	76 19.	102 13.	76 05 16	76 06 16	32	30	105	150	AAND	X X

CURRENT METER DATA, SET NUMBER: 76-0016
YEAR:1976 VESSEL/AGENCY: OC.&AQ.SC., CENTRAL REGION

AREA	STN	LAT DEG	LAT MIN	LONG DEG	LONG MIN	START YR	START MO	START DY	STOP YR	STOP MO	STOP DY	EFF LEN	DT MN	DEPTHS INST	DEPTHS WATER	INST TYPE	ADDIT SENSOR P	ADDIT SENSOR T	ADDIT SENSOR C
PENNY ST	12.1	76	41.50	097	07.00	76	04	13	76	05	06	18	15	?	187	M MC			
PENNY ST	12.2	76	41.50	097	07.00	76	04	13	76	05	06	23	15	?	187	ENDE			
PENNY ST	12.3	76	41.50	097	07.00	76	04	13	76	04	14	.5	60	?	187	ENDE			
PENNY ST	14.1	76	38.50	097	23.80	76	04	17	76	05	07	20	15	?	260	M MC			
PENNY ST	14.2	76	38.50	097	23.80	76	04	17	76	05	07	20	15	?	260	ENDE			
PENNY ST	14.3	76	38.50	097	23.80	76	04	16	76	04	17	.5	60	?	260	ENDE			

CURRENT METER DATA, SET NUMBER: 76-0017
YEAR:1976 VESSEL/AGENCY: FROZEN SEA RESEARCH GROUP

AREA	STN	LAT DEG	LAT MIN	LONG DEG	LONG MIN	START YR	START MO	START DY	STOP YR	STOP MO	STOP DY	EFF LEN	DT MN	DEPTHS INST	DEPTHS WATER	INST TYPE	ADDIT SENSOR P	ADDIT SENSOR T	ADDIT SENSOR C
BYAM CH	B1	75	32.7	105	25.2	76	04	20	76	06	25	96	60	?	45	AAND			
BYAM CH	B2.1	75	30.2	105	08.7	76	04	22	76	07	15	83	60	?	87	AAND			
BYAM CH	B2.2	75	30.2	105	08.7	76	05	01	76	06	28	58	60	85	87	AAND		X	X
BYAM CH	B3.1	75	26.9	104	57.4	76	05	10	76	06	10	30	60	62	64	AAND		X	X
BYAM CH	B4.1	75	26.9	104	46.5	76	04	28	76	06	28	61	60	.5	150	AAND			
BYAM CH	B5.1	75	25.5	104	37.8	76	05	12	76	07	25	73	60	.5	46	AAND			
BYAM CH	B5.2	75	25.5	104	37.8	76	05	12	76	06	29	47	60	44	46	AAND		X	
AUSTIN CH	A1.1	75	25.2	103	50.1	76	05	10	76	07	21	72	60	.5	110	AAND			
AUSTIN CH	A1.2	75	25.2	103	50.1	76	05	10	76	07	21	71	60	.5	110	AAND		X	X
AUSTIN CH	A2.1	75	26.4	103	38.7	76	05	09	76	07	02	53	60	.5	144	AAND			
AUSTIN CH	A2.2	75	26.4	103	38.7	76	05	08	77	03	14	104*	60	142	144	AAND		X	X
AUSTIN CH	A3.1	75	28.2	103	21.6	76	05	08	76	06	18	40	60	.5	170	AAND			
AUSTIN CH	A3.2	75	28.2	103	21.6	76	05	10	76	06	22	42	60	168	170	AAND		X	X
AUSTIN CH	A4.1	75	30.2	103	01.0	76	05	13	76	07	22	79	60	.5	242	AAND			
AUSTIN CH	A4.2	75	30.2	103	01.0	76	05	10	76	06	23	43	60	240	242	AAND		X	X
AUSTIN CH	A5.1	75	31.5	102	49.2	76	05	02	76	06	15	41	60	.5	56	AAND			
AUSTIN CH	A5.2	75	31.5	102	49.2	76	05	10	76	05	17	6	60	54	56	AAND		X	X

* TEMPERATURE DATA ONLY AFTER AUGUST 21, 1976.

CURRENT METER DATA, SET NUMBER: 77-0022
YEAR:1977 VESSEL/AGENCY: IVL FOR PANARCTIC

AREA	STN	LAT DEG	LAT MIN	LONG DEG	LONG MIN	START YR	START MO	START DY	STOP YR	STOP MO	STOP DY	EFF LEN	DT MN	DEPTHS INST	DEPTHS WATER	INST TYPE	ADDIT SENSOR P	ADDIT SENSOR T	ADDIT SENSOR C
HEC.& GR.B	1.1	76	17.00	111	21.00	77	03	24	77	04	16	24	60	10	290	AAND		X	X
HEC.& GR.B	1.2	76	17.00	111	21.00	77	04	17	77	05	01	15	60	10	290	AAND		X	X

CURRENT METER DATA, SET NUMBER: 77-0023
YEAR:1977 VESSEL/AGENCY: IVL FOR PANARCTIC

AREA	STN	LAT DEG	LAT MIN	LONG DEG	LONG MIN	START YR	START MO	START DY	STOP YR	STOP MO	STOP DY	EFF LEN	DT MN	DEPTHS INST	DEPTHS WATER	INST TYPE	ADDIT SENSOR P	ADDIT SENSOR T	ADDIT SENSOR C
EDINB.SEA	2.2	77	37.57	99	27.43	77	03	02	77	06	29	120	60	2	396	AAND		X	X
HAZEN ST	3.2	76	58.05	110	40.43	77	03	14	77	07	01	109	60	2	120	AAND		X	X

CURRENT METER DATA, SET NUMBER: 77-0026
YEAR:1977 VESSEL/AGENCY: FROZEN SEA RESEARCH GROUP

AREA	STN	LAT DEG	LAT MIN	LONG DEG	LONG MIN	START YR	START MO	START DY	STOP YR	STOP MO	STOP DY	EFF LEN	DT MN	DEPTHS INST	DEPTHS WATER	INST TYPE	ADDIT SENSOR P	ADDIT SENSOR T	ADDIT SENSOR C
CROZIER ST	C1.1	75	31.6	97	22.2	77	03	27	77	06	11	76	60	.5	64	AAND			
CROZIER ST	C1.2	75	31.6	97	22.2	77	03	28	77	06	11	75	60	25	64	AAND		X	X
CROZIER ST	C1.3	75	31.6	97	22.2	77	03	30	77	04	14	17	60	62	64	AAND		X	X
CROZIER ST	C2.1	75	31.5	97	19.8	77	03	30	77	06	11	73	60	.5	54	AAND			
CROZIER ST	C2.2	75	31.5	97	19.8	77	03	30	77	06	11	72	60	25	54	AAND		X	X
CROZIER ST	C2.3	75	31.5	97	19.8	77	03	29	77	07	01	94	60	52	54	AAND		X	X
CROZIER ST	C3.1	75	30.5	97	10.4	77	04	13	77	06	12	0	60	.5	94	AAND			
CROZIER ST	C3.2	75	30.5	97	10.4	77	04	13	77	08	09	118	60	92	94	AAND		X	
CROZIER ST	C4.1	75	30.3	97	08.0	77	04	10	77	06	14	65	60	.5	202	AAND			
CROZIER ST	C4.2	75	30.3	97	08.0	77	04	12	77	06	14	63	60	200	280	AAND		X	X
CROZIER ST	C4.3	75	30.3	97	08.0	77	04	09	77	12	31	266	60	278	280	AAND		X	X
CROZIER ST	C5.1	75	30.0	97	05.1	77	04	06	77	06	12	66	60	.5	319	AAND			
CROZIER ST	C5.2	75	30.0	97	05.1	77	04	07	77	06	13	67	60	75	319	AAND		X	X
CROZIER ST	C5.3	75	30.0	97	05.1	77	04	07	77	06	14	68	60	200	319	AAND		X	X
CROZIER ST	C5.4	75	30.0	97	05.1	77	04	05	77	03	21	350	60	317	319	AAND		X	X
CROZIER ST	C6.1	75	28.8	97	02.9	77	04	04	77	06	12	69	60	.5	273	AAND			
CROZIER ST	C6.2	75	28.8	97	02.9	77	04	03	77	08	07	125	60	271	273	AAND		X	X
PULLEN ST	P3.1	75	26.5	96	05.9	77	04	21	77	06	15	55	60	.5	56	AAND			
PULLEN ST	P3.2	75	26.5	96	05.9	77	04	21	77	06	15	55	60	25	56	AAND		X	X
PULLEN ST	P3.3	75	26.5	96	05.9	77	04	20	77	08	11	113	60	54	56	AAND		X	X

CURRENT METER DATA, SET NUMBER: 77-0024
YEAR:1978 VESSEL/AGENCY: PANARCTIC OIL

AREA	STN	LAT DEG	LAT MIN	LONG DEG	LONG MIN	START YR	START MO	START DY	STOP YR	STOP MO	STOP DY	EFF LEN	DT MN	DEPTHS INST	DEPTHS WATER	INST TYPE	ADDIT SENSOR P	ADDIT SENSOR T	ADDIT SENSOR C
HAZEN ST	1	76	24.00	113	11.00	78	01	18	78	04	17	90	30	10	232	AAND		X	X

CURRENT METER DATA, SET NUMBER: 77-0025
YEAR:1978 VESSEL/AGENCY: PANARCTIC OIL

AREA	STN	LAT DEG MIN	LONG DEG MIN	START YR MO DY	STOP YR MO DY	EFF LEN	DT MN	DEPTHS INST	DEPTHS WATER	INST TYPE	ADDIT SENSOR P T C
HAZEN ST	2	76 43.00	109 46.00	78 01 11	78 04 09	89	30	10	165	AAND	X X

CURRENT METER DATA, SET NUMBER: 77-0026
YEAR:1978 VESSEL/AGENCY: FROZEN SEA RESEARCH GROUP

AREA	STN	LAT DEG MIN	LONG DEG MIN	START YR MO DY	STOP YR MO DY	EFF LEN	DT MN	DEPTHS INST	DEPTHS WATER	INST TYPE	ADDIT SENSOR P T C
CROZIER ST	C4.3	75 30.3	97 08.0	78 01 01	78 03 22	81	60	278	280	AAND	X X

CURRENT METER DATA, SET NUMBER: 77-0033
YEAR:1977 VESSEL/AGENCY: PETRO-CANADA LTD.

AREA	STN	LAT DEG MIN	LONG DEG MIN	START YR MO DY	STOP YR MO DY	EFF LEN	DT MN	DEPTHS INST	DEPTHS WATER	INST TYPE	ADDIT SENSOR P T C
MACLEAN ST	1	77?31.6	104?24.1	77 11 28	78 07 18	?	?	5	259	AAND	
MACLEAN ST	1	77?31.6	104?24.1	77 11 28	78 07 18	?	?	30?	259	AAND	

CURRENT METER DATA, SET NUMBER: 77-0033
YEAR:1978 VESSEL/AGENCY: PETRO-CANADA LTD.

AREA	STN	LAT DEG MIN	LONG DEG MIN	START YR MO DY	STOP YR MO DY	EFF LEN	DT MN	DEPTHS INST	DEPTHS WATER	INST TYPE	ADDIT SENSOR P T C
HAZEN ST	2	77?05.6	111?08.8	78 02 23	78 07 17	?	?	5	361	AAND	
HAZEN ST	2	77?05.6	111?08.8	78 02 23	78 07 17	?	?	30?	361	AAND	
W.LOUGH IS	3	76?54.3	106?52.5	78 02 25	78 07 16	?	?	5	180	AAND	
W.LOUGH IS	3	76?54.3	106?52.5	78 02 25	78 07 16	?	?	30?	180	AAND	
EDINB SEA	4	77?30.0	98?00.0	78 02 25	78 07 16	?	?	5	108	AAND	
EDINB SEA	4	77?30.0	98?00.0	78 02 25	78 07 16	?	?	30?	108	AAND	
PR.GUSTAF	5	77?41.3	107?48.3	78 04 10	78 07 18	?	?	5	504?	AAND	
PR.GUSTAF	5	77?41.3	107?48.3	78 04 10	78 07 18	?	?	30?	504?	AAND	

CURRENT METER DATA, SET NUMBER: 78-0007
YEAR:1978 VESSEL/AGENCY: OC.&AQ.SC., CENTRAL REGION

AREA	STN	LAT DEG MIN	LONG DEG MIN	START YR MO DY	STOP YR MO DY	EFF LEN	DT MN	DEPTHS INST	DEPTHS WATER	INST TYPE	ADDIT SENSOR P T C
AUSTIN CH	82.1	75 27.30	103 05.40	78 03 15	78 04 26	0	10	5	180	AAND	X X
AUSTIN CH	82.2	75 27.30	103 05.40	78 03 15	78 03 26	11	10	50	180	AAND	X X
AUSTIN CH	92	75 11.10	101 06.70	78 03 15	78 04 26	0	10	4	155	AAND	X X
AUSTIN CH	95	75 07.40	102 59.60	78 03 15	78 04 19	17	10	5	147	AAND	X S

CURRENT METER DATA, SET NUMBER: 78-0010
YEAR:1978 VESSEL/AGENCY: PANARCTIC OIL

AREA	STN	LAT DEG MIN	LONG DEG MIN	START YR MO DY	STOP YR MO DY	EFF LEN	DT MN	DEPTHS INST	DEPTHS WATER	INST TYPE	ADDIT SENSOR P T C
E.SAB PEN	3.1	76 25.40	108 28.72	78 01 23	78 04 25	93	30	49	58	AAND	X X
E.SAB PEN	3.2	76 25.40	108 28.72	78 01 22	78 03 25	00	30	49	58	AAND	X X
E.SAB PEN	3.3	76 25.40	108 28.72	78 03 27	78 04 11	16	30	10	58	AAND	X X

CURRENT METER DATA, SET NUMBER: 78-0011
YEAR:1978 VESSEL/AGENCY: PANARCTIC OIL

AREA	STN	LAT DEG MIN	LONG DEG MIN	START YR MO DY	STOP YR MO DY	EFF LEN	DT MN	DEPTHS INST WATER	INST TYPE	ADDIT SENSOR P T C
NORWEGN.B	4.1	78 03.20	92 06.77	78 01 25	78 06 04	131	30	2 490	AAND	X X
EDINB.SEA	5.2	77 19.01	99 55.35	78 01 23	78 06 04	123	30	3 234	AAND	X X

CURRENT METER DATA, SET NUMBER: 78-0012
YEAR:1978 VESSEL/AGENCY: FROZEN SEA RESEARCH GROUP

AREA	STN	LAT DEG MIN	LONG DEG MIN	START YR MO DY	STOP YR MO DY	EFF LEN	DT MN	DEPTHS INST WATER	INST TYPE	ADDIT SENSOR P T C
WELL.CH	1	75 15.25	93 17.0	78 04 25	78 07 09	75	60	12 232	AAND	X X
WELL.CH	2.1	75 14.83	93 00.5	78 04 19	78 07 09	81	20	12 146	AAND	X X
WELL.CH	2.2	75 14.83	93 00.5	78 04 19	78 07 06	78	60	100 146	AAND	X
WELL.CH	3.1	75 14.92	92 52.0	78 04 04	78 07 08	94	60	20 160	AAND	X X
WELL.CH	3.2	75 14.92	92 52.0	78 04 03	78 07 08	96	60	100 160	AAND	X X
WELL.CH	4	75 14.33	92 37.5	78 04 06	78 07 08	92	60	12 188	AAND	X X

CURRENT METER DATA, SET NUMBER: 78-0013
YEAR:1979 VESSEL/AGENCY: PANARCTIC OIL

AREA	STN	LAT DEG MIN	LONG DEG MIN	START YR MO DY	STOP YR MO DY	EFF LEN	DT MN	DEPTHS INST WATER	INST TYPE	ADDIT SENSOR P T C
HAZEN ST	1	77 03.26	110 21.16	79 01 06	79 04 29	114	30	10 225	AAND	X X

CURRENT METER DATA, SET NUMBER: 78-0014
YEAR:1979 VESSEL/AGENCY: PANARCTIC OIL

AREA	STN	LAT DEG	LAT MIN	LONG DEG	LONG MIN	START YR	START MO	START DY	STOP YR	STOP MO	STOP DY	EFF LEN	DT MN	DEPTHS INST	DEPTHS WATER	INST TYPE	ADDIT SENSOR P	ADDIT SENSOR T	ADDIT SENSOR C
DESBARATS	2	76	42.21	105	57.25	79	01	01	79	04	06	51	30	10	150	AAND		X	X

CURRENT METER DATA, SET NUMBER: 79-0017
YEAR:1979 VESSEL/AGENCY: PETRO-CANADA LTD.

AREA	STN	LAT DEG	LAT MIN	LONG DEG	LONG MIN	START YR	START MO	START DY	STOP YR	STOP MO	STOP DY	EFF LEN	DT MN	DEPTHS INST	DEPTHS WATER	INST TYPE	ADDIT SENSOR P	ADDIT SENSOR T	ADDIT SENSOR C
MACLEAN ST	1	77	35.1	103	42.1	79	02?17		79	06	20	124?	60	5	263	AAND			
MACLEAN ST	1	77	35.1	103	42.1	79	02?26		79	06	20	114?	60	30	263	AAND			
HAZEN ST	2	77	10.7	111	11.8	79	03?05		79	06	21	109?	60	5	368	AAND			
HAZEN ST	2	77	10.7	111	11.8	79	03?06		79	06	21	108?	60	30	368	AAND			
W.LOUGH IS	3	76	58.7	106	49.6	79	02?01		79	06	17	136?	30	5	170	AAND			
W.LOUGH IS	3	76	58.7	106	49.6	79	01?25		79	06	17	143?	30	30	170	AAND			
EDINB SEA	4	77	32.3	98	03.4	79	03?06		79	06	22	107?	60	5	259	AAND			
EDINB SEA	4	77	32.3	98	03.4	79	03?06		79	06	22	107?	60	30	259	AAND			
PR.GUSTAF	5	77	41.3	107	48.3	79	02?25		79	06	19	114?	60	5	504	AAND			
PR.GUSTAF	5	77	41.3	107	48.3	79	02?25		79	03?03		9?	60	30	504	AAND			

CURRENT METER DATA, SET NUMBER: 79-0018
YEAR:1979 VESSEL/AGENCY: PANARCTIC OIL

AREA	STN	LAT DEG	LAT MIN	LONG DEG	LONG MIN	START YR	START MO	START DY	STOP YR	STOP MO	STOP DY	EFF LEN	DT MN	DEPTHS INST	DEPTHS WATER	INST TYPE	ADDIT SENSOR P	ADDIT SENSOR T	ADDIT SENSOR C
W.LOUGH IS	3	77	12.30	106	52.88	79	01	13	79	05	05	113	30	10	240	AAND		X	X

CURRENT METER DATA, SET NUMBER: 79-0019
YEAR:1979 VESSEL/AGENCY: OC.&AQ.SC., CENTRAL REGION

AREA	STN	LAT DEG	LAT MIN	LONG DEG	LONG MIN	START YR	START MO	START DY	STOP YR	STOP MO	STOP DY	EFF LEN	DT MN	DEPTHS INST	DEPTHS WATER	INST TYPE	ADDIT SENSOR P	ADDIT SENSOR T	ADDIT SENSOR C
DESBARATS	12.1	76	55.00	103	49.00	79	04	03	79	05	07	0	10	5	195	AAND		X	X
DESBARATS	12.2	76	55.00	103	49.00	79	04	03	79	05	01	28	10	50	195	AAND		X	X
DESBARATS	14.1	76	47.00	103	52.00	79	04	03	79	04	27	10	10	5	325	AAND		X	X
DESBARATS	14.2	76	47.00	103	52.00	79	04	04	79	05	03	30	10	50	325	AAND		X	X
DESBARATS	22.1	77	05.00	106	10.00	79	04	03	79	04	03	0	10	6	199	AAND		X	X
DESBARATS	22.2	77	05.00	106	10.00	79	04	03	79	04	08	2	10	50	199	AAND		X	X
DESBARATS	24.1	76	52.00	107	52.00	79	04	03	79	05	02	29	10	5	439	AAND		X	X
DESBARATS	24.2	76	52.00	107	52.00	79	04	04	79	04	12	0	10	50	439	AAND		X	X
MACLEAN ST	32.1	77	50.00	100	46.00	79	04	08	79	04	30	22	10	5	210	AAND		X	X
MACLEAN ST	32.2	77	50.00	100	46.00	79	04	08	79	05	08	29	10	50	210	AAND		X	X
MACLEAN ST	35.1	77	37.00	102	55.00	79	04	08	79	04	25	0	10	5	350	AAND		X	X
MACLEAN ST	35.2	77	37.00	102	55.00	79	04	08	79	04	25	17	10	50	350	AAND		X	X
MACLEAN ST	37.1	77	30.00	103	58.00	79	04	08	79	05	07	0	10	6	290	AAND		X	X
MACLEAN ST	37.2	77	30.00	103	58.00	79	04	08	79	05	07	12	10	50	290	AAND		X	X

CURRENT METER DATA, SET NUMBER: 79-0020
YEAR:1980 VESSEL/AGENCY: PANARCTIC OIL

AREA	STN	LAT DEG	LAT MIN	LONG DEG	LONG MIN	START YR	START MO	START DY	STOP YR	STOP MO	STOP DY	EFF LEN	DT MN	DEPTHS INST	DEPTHS WATER	INST TYPE	ADDIT SENSOR P	ADDIT SENSOR T	ADDIT SENSOR C
W.LOUGH IS	1.1	77	12.40	106	53.43	80	01	16	80	05	11	117	20	10	275	AAND		X	X
W.LOUGH IS	1.2	77	12.40	106	53.43	80	02	28	80	05	12	14	30	150	320	AAND		X	X
W.LOUGH IS	1.3	77	12.40	106	53.43	80	03	02	80	05	13	19	30	275	320	AAND		X	X
W.LOUGH IS	1.4	77	12.40	106	53.43	80	03	02	80	05	13	19	30	275	320	AAND		X	X

CURRENT METER DATA, SET NUMBER: 79-0022
YEAR:1980 VESSEL/AGENCY: PANARCTIC OIL

AREA	STN	LAT DEG	LAT MIN	LONG DEG	LONG MIN	START YR	START MO	START DY	STOP YR	STOP MO	STOP DY	EFF LEN	DT MN	DEPTHS INST	DEPTHS WATER	INST TYPE	ADDIT SENSOR P	ADDIT SENSOR T	ADDIT SENSOR C
EDINB.SEA	2	77	37.18	100	22.40	80	01	21	80	04	11	35	20	10	236	AAND		X	X
EDINB.SEA	3.1	77	36.50	99	31.13	80	01	21	80	02	23	34	20	10	262	AAND		X	X
EDINB.SEA	3.2	77	36.50	99	31.13	80	02	23	80	04	11	0	20	10	262	AAND		X	X

CURRENT METER DATA, SET NUMBER: 80-0013
YEAR:1980 VESSEL/AGENCY: FROZEN SEA RESEARCH GROUP

AREA	STN	LAT DEG	LAT MIN	LONG DEG	LONG MIN	START YR	START MO	START DY	STOP YR	STOP MO	STOP DY	EFF LEN	DT MN	DEPTHS INST	DEPTHS WATER	INST TYPE	ADDIT SENSOR P	ADDIT SENSOR T	ADDIT SENSOR C
DUNDAS IS.	1	76	10.0	94	55.0	80	03	08	80	04	11	33	5	12	70	AAND		X	X
DUNDAS IS.	2	76	11.0	94	57.6	80	03	08	80	04	11	33	10	12	37	AAND		X	X
DUNDAS IS.	3	76	11.9	94	59.6	80	03	08	80	04	11	33	10	12	38	AAND		X	X
DUNDAS IS.	4	76	10.8	95	33.4	80	03	08	80	04	12	33	10	12	142	AAND		X	X
DUNDAS IS.	5	76	09.4	94	53.6	80	03	21	80	04	01	18	5	12	27	AAND		X	X

CURRENT METER DATA, SET NUMBER: 80-0014
YEAR:1980 VESSEL/AGENCY: DOBROCKY SEATECH FOR POLAR GAS

AREA	STN	LAT DEG	LAT MIN	LONG DEG	LONG MIN	START YR	START MO	START DY	STOP YR	STOP MO	STOP DY	EFF LEN	DT MN	DEPTHS INST	DEPTHS WATER	INST TYPE	ADDIT SENSOR P	ADDIT SENSOR T	ADDIT SENSOR C
W.LOUGH IS	4.1	77	11.5	105	38.0	80	04	10	80	05	01	21	15	10	63	AAND		X	X
W.LOUGH IS	4.2	77	11.5	105	38.0	80	04	10	80	04	13	34	15	28	63	AAND		X	X
W.LOUGH IS	4.3	77	11.5	105	38.0	80	04	10	80	05	01	21	15	60	63	AAND		X	X
W.LOUGH IS	5.1	76	56.9	107	41.0	80	04	10	80	05	01	21	15	10	525	AAND		X	X
W.LOUGH IS	5.2	76	56.9	107	41.0	80	04	10	80	04	14	4	15	268	525	AAND		X	X
W.LOUGH IS	6.1	76	50.5	108	34.0	80	04	11	80	04	26	15	15	10	72	AAND		X	X
W.LOUGH IS	6.2	76	50.5	108	34.0	80	04	11	80	05	01	20	15	36	72	AAND		X	X
W.LOUGH IS	6.3	76	50.5	108	34.0	80	04	11	80	05	01	20	15	66	72	AAND		X	X

11.3 WATER LEVEL DATA

The listings contain the following information:

AREA	Area
STN	Station number; generally as assigned by the originating agency.
LAT, LONG	In degrees and minutes.
START/STOP	Year, month and day instrument recorded over.
EFF LEN	Effective record length.
DT (MN)	Sampling rate in minutes.
INST & WATER DPTH	In metres.
INSTR TYPE	STAF - Tide staff AAND - Aanderaa AMS - Applied Microsystems OTT - Ott gauge, either float or poteniometric
ADDIT SENSOR	Parameters measured qualified by: X - measurements of this parameter were made CA - possible calibration problems S - suspect readings C - constant readings O - zero or obviously bad readings

Blank entries indicate unavailable or unappropriate data.
? signifies data which are either unknown or may be suspect. For example, a location which plots on land.

WATER LEVEL DATA, SET NUMBER: 49-0001
YEAR:1949 VESSEL/AGENCY: CANADIAN HYDROGRAPHIC SERVICE

AREA	STN	LAT DEG	LAT MIN	LONG DEG	LONG MIN	START YR	START MO	START DY	STOP YR	STOP MO	STOP DY	EFF LEN	DT MN	DEPTHS INST	DEPTHS WATER	INST TYPE	ADDIT SENSOR P	ADDIT SENSOR T	ADDIT SENSOR C
ISAACHSEN	1	78	47.0	103	32.0	49	08	01	49	12	31	?	?	?	?	?			
ISAACHSEN	1	78	47.0	103	32.0	50	01	01	50	12	31	?	?	?	?	?			
ISAACHSEN	1	78	47.0	103	32.0	51	01	01	51	08	31	?	?	?	?	?			

WATER LEVEL DATA, SET NUMBER: 51-0007
YEAR:1951 VESSEL/AGENCY: CANADIAN HYDROGRAPHIC SERVICE

AREA	STN	LAT DEG	LAT MIN	LONG DEG	LONG MIN	START YR	START MO	START DY	STOP YR	STOP MO	STOP DY	EFF LEN	DT MN	DEPTHS INST	DEPTHS WATER	INST TYPE	ADDIT SENSOR P	ADDIT SENSOR T	ADDIT SENSOR C
MOULD BAY	1	76	17.0	119	28.9	51	07	01	51	12	31	?	?	?	?	?			
MOULD BAY	1	76	17.0	119	28.9	52	01	01	52	08	31	?	?	?	?	?			

WATER LEVEL DATA, SET NUMBER: 54-0010
YEAR:1954 VESSEL/AGENCY: CANADIAN HYDROGRAPHIC SERVICE

AREA	STN	LAT DEG	LAT MIN	LONG DEG	LONG MIN	START YR	START MO	START DY	STOP YR	STOP MO	STOP DY	EFF LEN	DT MN	DEPTHS INST	DEPTHS WATER	INST TYPE	ADDIT SENSOR P	ADDIT SENSOR T	ADDIT SENSOR C
ISAACHSEN	1	78	47.0	103	32.0	54	07	01	54	08	31	?	?	?	?	?			
EUREKA	2	79	59.0	85	57.0	54	07	01	54	12	31	?	?	?	?	?			
EUREKA	2	79	59.0	85	57.0	55	01	01	55	12	31	?	?	?	?	?			
EUREKA	2	79	59.0	85	57.0	56	01	01	56	12	31	?	?	?	?	?			
EUREKA	2	79	59.0	85	57.0	57	01	01	57	12	31	?	?	?	?	?			
EUREKA	2	79	59.0	85	57.0	58	01	01	58	08	31	?	?	?	?	?			

WATER LEVEL DATA, SET NUMBER: 59-0004
YEAR:1959 VESSEL/AGENCY: CANADIAN HYDROGRAPHIC SERVICE

AREA	STN	LAT DEG MIN	LONG DEG MIN	START YR MO DY	STOP YR MO DY	EFF LEN	DT MN	DEPTHS INST	DEPTHS WATER	INST TYPE	ADDIT SENSOR P T C
ISAACHSEN	1	78 47.0	103 32.0	59 03 01	59 04 30	?	?	?	?	?	

WATER LEVEL DATA, SET NUMBER: 62-0013
YEAR:1962 VESSEL/AGENCY: CANADIAN HYDROGRAPHIC SERVICE

AREA	STN	LAT DEG MIN	LONG DEG MIN	START YR MO DY	STOP YR MO DY	EFF LEN	DT MN	DEPTHS INST	DEPTHS WATER	INST TYPE	ADDIT SENSOR P T C
QUEENS CH	1	76 05.0	97 44.0	62 07 01	62 07 31	?	?	?	?	?	

WATER LEVEL DATA, SET NUMBER: 64-0008
YEAR:1964 VESSEL/AGENCY: DEF. RES. EST. OTTAWA

AREA	STN	LAT DEG MIN	LONG DEG MIN	START YR MO DY	STOP YR MO DY	EFF LEN	DT MN	DEPTHS INST	DEPTHS WATER	INST TYPE	ADDIT SENSOR P T C
TANQ. FD.	1	81 24.0	76 55.0	64 07 01	64 08 23	43	?	?	?	?	

WATER LEVEL DATA, SET NUMBER: 68-0008
YEAR:1968 VESSEL/AGENCY: CANADIAN HYDROGRAPHIC SERVICE

AREA	STN	LAT	LONG	START	STOP	EFF	DT	DEPTHS		INST	ADDIT SENSOR
		DEG MIN	DEG MIN	YR MO DY	YR MO DY	LEN	MN	INST	WATER	TYPE	P T C
NANSEN SD.	1	80 19.0	86 20.0	68 05 01	68 06 30	?	?	?	?	?	
NANSEN SD.	2	81 31.0	92 30.0	68 05 01	68 06 30	?	?	?	?	?	
TANQ. FD.	3	81 24.0	76 55.0	68 05 01	68 08 31	?	?	?	?	?	

WATER LEVEL DATA, SET NUMBER: 69-0015
YEAR:1969 VESSEL/AGENCY: FROZEN SEA RESEARCH GROUP

AREA	STN	LAT	LONG	START	STOP	EFF	DT	DEPTHS		INST	ADDIT SENSOR
		DEG MIN	DEG MIN	YR MO DY	YR MO DY	LEN	MN	INST	WATER	TYPE	P T C
GREELY FD.	1	80 36.0	79 35.0	69 08 01	69 09 30	?	?	?	?	OTTB	

WATER LEVEL DATA, SET NUMBER: 69-0016
YEAR:1969 VESSEL/AGENCY: CANADIAN HYDROGRAPHIC SERVICE

AREA	STN	LAT	LONG	START	STOP	EFF	DT	DEPTHS		INST	ADDIT SENSOR
		DEG MIN	DEG MIN	YR MO DY	YR MO DY	LEN	MN	INST	WATER	TYPE	P T C
BYAM CH.	1	75 22.0	105 24.0	69 08 01	69 08 31	?	?	?	?	?	

WATER LEVEL DATA, SET NUMBER: 70-0017
YEAR:1970 VESSEL/AGENCY: FROZEN SEA RESEARCH GROUP

AREA	STN	LAT DEG MIN	LONG DEG MIN	START YR MO DY	STOP YR MO DY	EFF LEN	DT MN	DEPTHS INST	DEPTHS WATER	INST TYPE	ADDIT SENSOR P T C
GREELY FD.	1	80 35.0	79 36.0	70 03 31	70 04 07	?	?	?	?	OTTB	

WATER LEVEL DATA, SET NUMBER: 70-0018
YEAR:1970 VESSEL/AGENCY: FROZEN SEA RESEARCH GROUP

AREA	STN	LAT DEG MIN	LONG DEG MIN	START YR MO DY	STOP YR MO DY	EFF LEN	DT MN	DEPTHS INST	DEPTHS WATER	INST TYPE	ADDIT SENSOR P T C
GREELY FD.	1	80 35.0	79 36.0	70 08 15	70 10 04	?	?	?	?	OTTB	

WATER LEVEL DATA, SET NUMBER: 72-0023
YEAR:1972 VESSEL/AGENCY: FROZEN SEA RESEARCH GROUP

AREA	STN	LAT DEG MIN	LONG DEG MIN	START YR MO DY	STOP YR MO DY	EFF LEN	DT MN	DEPTHS INST	DEPTHS WATER	INST TYPE	ADDIT SENSOR P T C
GREELY FD.	1	80 36.0	79 33.0	72 08 22	72 12 31	?	?	?	10	FSRG	

WATER LEVEL DATA, SET NUMBER: 73-0014
YEAR:1973 VESSEL/AGENCY: CANADIAN HYDROGRAPHIC SERVICE

AREA	STN	LAT DEG MIN	LONG DEG MIN	START YR MO DY	STOP YR MO DY	EFF LEN	DT MN	DEPTHS INST	DEPTHS WATER	INST TYPE	ADDIT SENSOR P T C
BYAM CH.	1	75 01.0	106 22.0	73 08 01	73 08 31	?	?	?	?	?	
BYAM CH.	2	75 08.0	105 50.0	73 07 01	73 08 31	?	?	?	?	?	
QUEENS CH.	3	75 21.0	96 54.0	73 08 01	73 09 30	?	?	?	?	?	
NORWEG. B	1	78 20.0	90 20.0	73 04 01	73 05 31	?	?	?	?	?	

WATER LEVEL DATA, SET NUMBER: 73-0013
YEAR:1973 VESSEL/AGENCY: FROZEN SEA RESEARCH GROUP

AREA	STN	LAT DEG MIN	LONG DEG MIN	START YR MO DY	STOP YR MO DY	EFF LEN	DT MN	DEPTHS INST	DEPTHS WATER	INST TYPE	ADDIT SENSOR P T C
GREELY FD.	1	80 36.0	79 33.0	73 06 01	73 07 15	?	?	?	?	FSRG	
GREELY FD.	1	80 36.0	79 33.0	73 09 19	73 12 31	?	?	?	?	FSRG	
GREELY FD.	2	80 35.8	79 27.5	73 06 30	73 08 22	?	?	?	?	FSRG	
GREELY FD.	1	80 36.0	79 33.0	73 01 01	73 12 31	?	?	?	?	FSRG	
GREELY FD.	1	80 36.0	79 33.0	74 01 01	74 07 15	?	?	?	?	FSRG	

WATER LEVEL DATA, SET NUMBER: 74-0025
YEAR:1974 VESSEL/AGENCY: FROZEN SEA RESEARCH GROUP

AREA	STN	LAT DEG MIN	LONG DEG MIN	START YR MO DY	STOP YR MO DY	EFF LEN	DT MN	DEPTHS INST	DEPTHS WATER	INST TYPE	ADDIT SENSOR P T C
GREELY FD.	1	80 36.0	79 33.0	74 03 29	74 06 29	?	?	?	?	FSRG	
GREELY FD.	1	80 36.0	79 33.0	74 08 19	74 12 31	?	?	?	10	FSRG	
GREELY FD.	2	80 35.8	79 27.5	74 08 18	74 12 31	?	?	?	10	FSRC	
GREELY FD.	1	80 36.0	79 33.0	75 01 01	75 06 29	?	?	?	10	FSRG	
GREELY FD.	2	80 35.8	79 27.5	75 01 01	75 06 16	?	?	?	10	FSRG	

WATER LEVEL DATA, SET NUMBER: 75-0017
YEAR:1975 VESSEL/AGENCY: BEAK FOR PANARCTIC

AREA	STN	LAT DEG MIN	LONG DEG MIN	START YR MO DY	STOP YR MO DY	EFF LEN	DT MN	DEPTHS INST	DEPTHS WATER	INST TYPE	ADDIT SENSOR P T C
BYAM M.CH	11	76?24.67	107?48.78	75 01 03	75 04 22	109	?	?	132	?	

WATER LEVEL DATA, SET NUMBER: 75-0020
YEAR:1975 VESSEL/AGENCY: BEAK FOR PANARCTIC OIL

AREA	STN	LAT DEG MIN	LONG DEG MIN	START YR MO DY	STOP YR MO DY	EFF LEN	DT MN	DEPTHS INST	DEPTHS WATER	INST TYPE	ADDIT SENSOR P T C
HEC.& GR.B	1	76 21.92	110 53.08	75 11 23	75 12 31	38	?	?	?	STPH	

WATER LEVEL DATA, SET NUMBER: 75-0021
YEAR:1975 VESSEL/AGENCY: BEAK FOR PANARCTIC OIL

AREA	STN	LAT DEG MIN	LONG DEG MIN	START YR MO DY	STOP YR MO DY	EFF LEN	DT MN	DEPTHS INST	DEPTHS WATER	INST TYPE	ADDIT SENSOR P T C
MACLEAN ST	3	78 05.37	101 50.67	75 12 13	75 12 31	18	?	?	60	STPH	

WATER LEVEL DATA, SET NUMBER: 75-0039
YEAR:1975 VESSEL/AGENCY: FROZEN SEA RESEARCH GROUP

AREA	STN	LAT DEG MIN	LONG DEG MIN	START YR MO DY	STOP YR MO DY	EFF LEN	DT MN	DEPTHS INST	DEPTHS WATER	INST TYPE	ADDIT SENSOR P T C
GREELY FD.	1	80 36.0	79 33.0	75 03 25	75 08 16	?	?	?	10	FSRG	
GREELY FD.	2	80 35.8	79 27.5	75 03 25	75 06 16	?	?	?	10	FSRG	

WATER LEVEL DATA, SET NUMBER: 75-0040
YEAR:1975 VESSEL/AGENCY: CANADIAN HYDROGRAPHIC SERVICE

AREA	STN	LAT DEG MIN	LONG DEG MIN	START YR MO DY	STOP YR MO DY	EFF LEN	DT MN	DEPTHS INST	DEPTHS WATER	INST TYPE	ADDIT SENSOR P T C
BYAM CH.	1	75 22.0	105 24.0	75 08 01	75 [illegible]	?	?	?	?	?	

WATER LEVEL DATA, SET NUMBER: 75-0020
YEAR:1976 VESSEL/AGENCY: BEAK FOR PANARCTIC OIL

AREA	STN	LAT DEG MIN	LONG DEG MIN	START YR MO DY	STOP YR MO DY	EFF LEN	DT MN	DEPTHS INST	DEPTHS WATER	INST TYPE	ADDIT SENSOR P T C
HEC.& GR.B	1	76 21.92	110 53.08	76 01 01	76 02 29	60	?	?	?	STPH	

WATER LEVEL DATA, SET NUMBER: 75-0021
YEAR:1976 VESSEL/AGENCY: BEAK FOR PANARCTIC OIL

AREA	STN	LAT DEG MIN	LONG DEG MIN	START YR MO DY	STOP YR MO DY	EFF LEN	DT MN	DEPTHS INST	DEPTHS WATER	INST TYPE	ADDIT SENSOR P T C
KRISTOFF.B	3	78 05.37	101 50.67	76 01 01	76 04 19	110	?	?	60	STPH	

WATER LEVEL DATA, SET NUMBER: 76-0014
YEAR:1976 VESSEL/AGENCY: BEAK FOR PANARCTIC OIL

AREA	STN	LAT DEG MIN	LONG DEG MIN	START YR MO DY	STOP YR MO DY	EFF LEN	DT MN	DEPTHS INST	DEPTHS WATER	INST TYPE	ADDIT SENSOR P T C
HEC.& GR.B	2	76 24.90	111 11.22	76 01 28	76 04 16	76	?	?	?	STPH	

WATER LEVEL DATA, SET NUMBER: 76-0016
YEAR:1976 VESSEL/AGENCY: OC.&AQ.SC.-CENTRAL REGION

AREA	STN	LAT DEG MIN	LONG DEG MIN	START YR MO DY	STOP YR MO DY	EFF LEN	DT MN	DEPTHS INST	DEPTHS WATER	INST TYPE	ADDIT SENSOR P T C
PENNY ST.	101	76 45.0	96 54.0	76 3 16	76 04 22	37	?	?	60	AAND	

WATER LEVEL DATA, SET NUMBER: 76-0018
YEAR:1976 VESSEL/AGENCY: FROZEN SEA RESEARCH GROUP

AREA	STN	LAT DEG MIN	LONG DEG MIN	START YR MO DY	STOP YR MO DY	EFF LEN	DT MN	DEPTHS INST	DEPTHS WATER	INST TYPE	ADDIT SENSOR P T C
GREELY FD.	1	80 36.0	79 33.0	76 03 13	? ? ?	?	?	?	10	FSRG	
GREELY FD.	2	80 35.8	79 27.5	76 03 13	? ? ?	?	?	?	10	FSRG	

WATER LEVEL DATA, SET NUMBER: 76-0019
YEAR:1976 VESSEL/AGENCY: PANARCTIC OIL LTD.

AREA	STN	LAT DEG MIN	LONG DEG MIN	START YR MO DY	STOP YR MO DY	EFF LEN	DT MN	DEPTHS INST	DEPTHS WATER	INST TYPE	ADDIT SENSOR P T C
BYAM M CH.	1	?	?	76 12 21	76 12 31	10	?	?	?	?	
HEC.& GR.B	1	76 17.00	111 21.00	77 02 23	77 04 26	12	?	?	?	?	
BYAM M CH.	1	?	?	77 01 01	77 03 02	61	?	?	?	?	

WATER LEVEL DATA, SET NUMBER: 77-0019
YEAR:1977 VESSEL/AGENCY: FROZEN SEA RESEARCH GROUP

AREA	STN	LAT DEG MIN	LONG DEG MIN	START YR MO DY	STOP YR MO DY	EFF LEN	DT MN	DEPTHS INST	DEPTHS WATER	INST TYPE	ADDIT SENSOR P T C
GREELY FD.	1	80 36.0	79 32.0	77 03 05	77 03 24	?	?	?	32	AAND	

WATER LEVEL DATA, SET NUMBER: 77-0024
YEAR:1977 VESSEL/AGENCY: PANARCTIC OIL LTD.

AREA	STN	LAT DEG MIN	LONG DEG MIN	START YR MO DY	STOP YR MO DY	EFF LEN	DT MN	DEPTHS INST	DEPTHS WATER	INST TYPE	ADDIT SENSOR P T C
HEC.& GR.B	1	76 24.00	113 11.00	77 12 19	77 12 31	12	?	?	232	STPH	

WATER LEVEL DATA, SET NUMBER: 77-0025
YEAR:1977 VESSEL/AGENCY: PANARCTIC OIL LTD.

AREA	STN	LAT DEG MIN	LONG DEG MIN	START YR MO DY	STOP YR MO DY	EFF LEN	DT MN	DEPTHS INST	DEPTHS WATER	INST TYPE	ADDIT SENSOR P T C
HEC.& GR.B	2	76 43.00	109 46.00	77 11 05	77 12 31	56	?	?	165	STPH	

WATER LEVEL DATA, SET NUMBER: 77-0026
YEAR:1977 VESSEL/AGENCY: FROZEN SEA RESEARCH GROUP

AREA	STN	LAT DEG MIN	LONG DEG MIN	START YR MO DY	STOP YR MO DY	EFF LEN	DT MN	DEPTHS INST	DEPTHS WATER	INST TYPE	ADDIT SENSOR P T C
CROZIER ST	101	75 30.8	97 12.8	77 3 25	77 06 15	84	?	?	28	AAND	

WATER LEVEL DATA, SET NUMBER: 77-0024
YEAR:1978 VESSEL/AGENCY: PANARCTIC OIL LTD.

AREA	STN	LAT DEG MIN	LONG DEG MIN	START YR MO DY	STOP YR MO DY	EFF LEN	DT MN	DEPTHS INST	DEPTHS WATER	INST TYPE	ADDIT SENSOR P T C
HEC.& GR.B	1	76 24.00	113 11.00	78 01 01	78 04 17	107	?	?	232	STPH	

WATER LEVEL DATA, SET NUMBER: 77-0025
YEAR:1978 VESSEL/AGENCY: PANARCTIC OIL LTD.

AREA	STN	LAT DEG MIN	LONG DEG MIN	START YR MO DY	STOP YR MO DY	EFF LEN	DT MN	DEPTHS INST	DEPTHS WATER	INST TYPE	ADDIT SENSOR P T C
HEC.& GR.B	2	76 43.00	109 46.00	78 01 01	78 04 12	102	?	?	165	STPH	

WATER LEVEL DATA, SET NUMBER: 78-0013
YEAR:1978 VESSEL/AGENCY: PANARCTIC OIL LTD.

AREA	STN	LAT DEG MIN	LONG DEG MIN	START YR MO DY	STOP YR MO DY	EFF LEN	DT MN	DEPTHS INST	DEPTHS WATER	INST TYPE	ADDIT SENSOR P T C
HAZEN STR	1	77 03.26	110 21.16	78 12 03	78 12 31	28	?	?	225	STPH	

WATER LEVEL DATA, SET NUMBER: 78-0014
YEAR:1978 VESSEL/AGENCY: PANARCTIC OIL LTD.

AREA	STN	LAT DEG MIN	LONG DEG MIN	START YR MO DY	STOP YR MO DY	EFF LEN	DT MN	DEPTHS INST	DEPTHS WATER	INST TYPE	ADDIT SENSOR P T C
DESBARATS	2	76 42.21	105 57.25	78 12 19	78 12 31	12	?	?	150	STPH	

WATER LEVEL DATA, SET NUMBER: 78-0016
YEAR:1978 VESSEL/AGENCY: PANARCTIC OIL LTD.

AREA	STN	LAT DEG MIN	LONG DEG MIN	START YR MO DY	STOP YR MO DY	EFF LEN	DT MN	DEPTHS INST	DEPTHS WATER	INST TYPE	ADDIT SENSOR P T C
BYAM M.CH?	3	?	?	78 01 21	78 04 29	99	?	?	?	?	

WATER LEVEL DATA, SET NUMBER: 78-0013
YEAR:1979 VESSEL/AGENCY: PANARCTIC OIL LTD.

AREA	STN	LAT DEG MIN	LONG DEG MIN	START YR MO DY	STOP YR MO DY	EFF LEN	DT MN	DEPTHS INST	DEPTHS WATER	INST TYPE	ADDIT SENSOR P T C
HAZEN STR	1	77 03.26	110 21.16	79 01 01	79 05 03	123	?	?	225	STPH	

WATER LEVEL DATA, SET NUMBER: 78-0014
YEAR:1979 VESSEL/AGENCY: PANARCTIC OIL LTD.

AREA	STN	LAT DEG MIN	LONG DEG MIN	START YR MO DY	STOP YR MO DY	EFF LEN	DT MN	DEPTHS INST	DEPTHS WATER	INST TYPE	ADDIT SENSOR P T C
DESBARATS	2	76 42.21	105 57.25	79 01 01	79 03 20	79	?	?	150	STPH	

WATER LEVEL DATA, SET NUMBER: 79-0018
YEAR:1979 VESSEL/AGENCY: PANARCTIC OIL LTD.

AREA	STN	LAT DEG MIN	LONG DEG MIN	START YR MO DY	STOP YR MO DY	EFF LEN	DT MN	DEPTHS INST	DEPTHS WATER	INST TYPE	ADDIT SENSOR P T C
W LOUGH I	3.1	77 12.30	106 52.88	79 01 09	79 05 09	121	?	?	240	STPH	
W LOUGH I	3.2	77 12.30	106 52.88	79 01 11	79 03 04	53	?	?	240	AAND	

WATER LEVEL DATA, SET NUMBER: 79-0020
YEAR:1979 VESSEL/AGENCY: PANARCTIC OIL LTD.

AREA	STN	LAT DEG MIN	LONG DEG MIN	START YR MO DY	STOP YR MO DY	EFF LEN	DT MN	DEPTHS INST	DEPTHS WATER	INST TYPE	ADDIT SENSOR P T C
W LOUGH I	1	77 12.40	106 53.43	79 11 11	79 12 31	50	?	?	275	STPH	

WATER LEVEL DATA, SET NUMBER: 79-0021
YEAR:1979 VESSEL/AGENCY: CANADIAN HYDROGRAPHIC SERVICE

AREA	STN	LAT DEG MIN	LONG DEG MIN	START YR MO DY	STOP YR MO DY	EFF LEN	DT MN	DEPTHS INST	DEPTHS WATER	INST TYPE	ADDIT SENSOR P T C
HAZEN ST	101	77 29.00	110 14.00	79 03 02	79 04 23	53	?	?	8	AAND	
HAZEN ST	102	76 54.00	109 00.00	79 03 06	79 04 23	49	?	?	?	AMS	
MACLEAN ST	103	77 27.00	104 53.00	79 03 03	79 04 23	52	?	?	15	AAND	
EDINB SEA	104	76 47.00	101 14.00	79 03 03	79 04 14	43	?	?	45	AAND	
BELCHER CH	105	77 02.00	096 37.00	79 03 08	79 04 20	44	?	?	20	AAND	
PENNY ST	106	76 29.00	097 05.00	79 03 01	79 04 13	44	?	?	6	AAND	
WELL CH.	107	75 08.00	092 12.00	79 03 04	79 04 20	47	?	?	19	AAND	

WATER LEVEL DATA, SET NUMBER: 79-0022
YEAR:1979 VESSEL/AGENCY: PANARCTIC OIL LTD.

AREA	STN	LAT DEG MIN	LONG DEG MIN	START YR MO DY	STOP YR MO DY	EFF LEN	DT MN	DEPTHS INST	DEPTHS WATER	INST TYPE	ADDIT SENSOR P T C
EDINB SEA	2.1	77 37.18	100 22.40	79 12 05	79 12 31	26	?	?	236	STPH	
EDINB SEA	3.1	77 36.50	99 31.13	79 12 10	79 12 31	21	?	?	262	STPH/AAND	

WATER LEVEL DATA, SET NUMBER: 79-0020
YEAR:1980 VESSEL/AGENCY: PANARCTIC OIL LTD.

AREA	STN	LAT DEG MIN	LONG DEG MIN	START YR MO DY	STOP YR MO DY	EFF LEN	DT MN	DEPTHS INST	DEPTHS WATER	INST TYPE	ADDIT SENSOR P T C
W LOUGH I	1	77 12.40	106 53.43	80 01 01	80 05 10	131	?	?	275	STPH	

WATER LEVEL DATA, SET NUMBER: 79-0022
YEAR:1980 VESSEL/AGENCY: PANARCTIC OIL LTD.

AREA	STN	LAT DEG	LAT MIN	LONG DEG	LONG MIN	START YR	START MO	START DY	STOP YR	STOP MO	STOP DY	EFF LEN	DT MN	DEPTHS INST	DEPTHS WATER	INST TYPE	ADDIT SENSOR P T C
EDINB SEA	2.1	77	37.18	100	22.40	80	01	01	80	01	08	8	?	?	236	STPH	
EDINB SEA	3.1	77	36.50	099	31.13	80	01	01	80	01	09	9	?	?	262	STPH	
EDINB SEA	3.2	77	36.50	099	31.13	80	04	05	80	04	19	15	?	?	262	STPH	
EDINB SEA	2.2	77	37.18	100	22.40	80	03	18	80	04	27	41	?	?	236	STPH	
EDINB SEA	3.3	77	36.50	099	31.13	80	?		80	?		00	?	?	262	AAND	

WATER LEVEL DATA, SET NUMBER: 80-0014
YEAR:1980 VESSEL/AGENCY: DOBROCKY SEATECH FOR POLAR GAS

AREA	STN	LAT DEG	LAT MIN	LONG DEG	LONG MIN	START YR	START MO	START DY	STOP YR	STOP MO	STOP DY	EFF LEN	DT MN	DEPTHS INST	DEPTHS WATER	INST TYPE	ADDIT SENSOR P T C
W LOUGH I	4	77	11.5	105	38.0	80	04	10	80	05	01	21	?	?	63	AAND	

WATER LEVEL DATA, SET NUMBER: 80-0015
YEAR:1980 VESSEL/AGENCY: CANADIAN HYDROGRAPHIC SERVICE

AREA	STN	LAT DEG	LAT MIN	LONG DEG	LONG MIN	START YR	START MO	START DY	STOP YR	STOP MO	STOP DY	EFF LEN	DT MN	DEPTHS INST	DEPTHS WATER	INST TYPE	ADDIT SENSOR P T C
WELL CH.	101	75	39.00	094	34.00	80	03	24	80	04	26	34	?	?	?	AAND	

WATER LEVEL DATA, SET NUMBER: 81-0019
YEAR:1981 VESSEL/AGENCY: CANADIAN HYDROGRAPHIC SERVICE

AREA	STN	LAT DEG	LAT MIN	LONG DEG	LONG MIN	START YR	START MO	START DY	STOP YR	STOP MO	STOP DY	EFF LEN	DT MN	DEPTHS INST	DEPTHS WATER	INST TYPE	ADDIT SENSOR P	ADDIT SENSOR T	ADDIT SENSOR C
MASSY SD	101	78	10.00	094	15.00	81	03	05	81				?	?	?	AAND			
NORWEG BAY	102	78	12.00	091	55.00	81	03	04	81	04	19	46	?	?	?	AAND			
NORWEG BAY	103	78	09.00	088	50.00	81	03	04	81	04	19	46	?	?	7	AAND			
BELCHER CH	104	76	58.00	093	55.00	81	03	05	81	04	20	46	?	?	41	AAND			
NORWEG BAY	105	76	53.00	089	37.00	81	03	04	81	04	19	46	?	?	10	AAND			
NORWEG BAY	106	76	26.00	089	07.00	81	03	04	81	04	19	46	?	?	5	AAND			

APPENDIX 1

48-0001

Nansen bottles and reversing thermometers were used as well as BTs at one station in the vicinity of Eureka weather station. Bottles samples were collected at 0, 25, 50, 75, 100, 150, 200, 300 and 400 feet. Tables of temperature, salinity and sigma-t are included at the end of Metcalfe's (1949) report, but no accuracies are provided.

The stated position is erroneous, being located 2 nautical miles (3 km) inland from the nearest coastline. Based on the station location map of the data report, the true position appears to be about 20 nautical miles to the northwest of the given location.

49-0001

After the second world war, a network of water level stations was gradually established at the sites of permanent weather stations. Very little documentation as to methods and accuracies is available. It is thought that these stations used mechanical shore-mounted float-type gauges.

The data are available from the Marine Environmental Data Services Branch (MEDS) under the identification number listed in the "Source or Reference" column of Table 1. The start and stop dates listed by MEDS invariably occur on the first day of the month and the last day of the month, leading us to suspect that the data is filed by months rather than dates. Thus, data are not necessarily available for each day of the first and last months. In addition, no indication is given of data gaps due to equipment failures which are associated with the use of mechanical water level gauges in ice-infested waters. Depths of instrument and water were often not available.

51-0007

See comments for 49-0001.

52-0003

Bottle casts for temperature, salinity and dissolved oxygen were carried out. Water transparency was determined by means of a Secchi disc and bottom (Phleger) cores were made when sea and bottom conditions permitted. Vertical net tows were collected at about one station in three to an average depth of 20 m. Visual estimates of currents and short term (28 hour) tidal height measurements and reported for Slidre Fiord near the Eureka weather station.

No estimates of data precision or accuracy are available in the data report (U.S. Naval Hydrographic Office, 1954).

The position given for station 44 is erroneous as it is located on Stor Island about 4 nautical miles (6 km) from the nearest coastline. Based on the map of station locations of the data report, the actual position is about 6.5 nautical miles (12 km) east of the given position.

54-0001

The temperature and salinity data collected were reported by Bailey (1955). These data were used to describe the oceanographic features of the Canadian Arctic Waterways in Bailey (1957). No accuracies are given nor are any known errors mentioned.

54-0010

These water level data were collected near the Eureka and Isachsen weather stations. See comments for data set 49-0001.

57-0003

No data report is available for these data but the results are described in considerable detail by Collin (1962).

No information is available as to methods, accuracies or errors in the data.

The location of station 124 is in error. The station position is located about 4 nautical miles (7.4 km) inshore on Bathurst Island. The latitude has been altered from 76°11.0'N to 76°41.0'N to provide agreement with the station location map of Collin (1962).

59-0004

These water level data were collected near the Isachsen weather station. See comments for data set 49-0001.

60-0005

Bottle casts used Knudsen type reversing bottles and Negretti and Zambra protected thermometers (one per bottle). Salinity samples were stored in glass bottles having rubber washers and were later analyzed at the Atlantic Oceanographic Group lab using a chemical titration technique (CODC, 1964). Plankton samples were forwarded to the Arctic Unit (Grainger, 1963).

60-0007

Temperature and salinity profile data were obtained by means of bottle casts from the sea-ice. Operations took place in a heated tent to avoid freezing of the salinity and oxygen samples. A light aircraft provided transportation between oceanographic stations, located on frozen leads and the base camp at Isachsen.

Collin (1961) also mentions that four oceanographic stations were occupied in 1959 in addition to those described as part of 60-0007. However, these data are not on file with MEDS nor was any data report or other information located.

61-0003

The data report (CODC, 1966) lists the following data as suspect:

Stn.	Depth	Suspect Data
4	0	Temperature
4	10	Temperature
28	49	Temperature
28	98	Temperature
38	10	Temperature
40	30	Temperature
40	98	Temperature

Barber and Huyer (1971), in the course of using these data to prepare an atlas of the waters of the Canadian Arctic Archipelago, indicated that the salinities were determined with conductivity bridge salinometers after completion of the field work.

61-0004

No suspect or erroneous data were listed in the data report (CODC, 1966).

Barber and Huyer (1971), in the course of using these data to prepare an atlas of the waters of the Canadian Arctic Archipelago, indicated that the salinities were determined with conductivity bridge salinometers after completion of the field work.

61-0005

No report of any kind could be found describing these data. These data are available from MEDS.

61-0009

Oceanographic observations were collected from the ice. Serial observations were collected at 0, 5, 10, 20, 30, 50, 75, 100, 125, 150, 175, 200, 250, 300 and 450 m using Fjarlie sampling bottles. One protected reversing thermometer was used in each bottle with an unprotected thermometer used on the two deepest bottles at each cast.

Current meter observations were obtained at 30.5 m (100 feet) over a 24-hour period using an electromagnetic induction current meter designed and built by the Pacific Naval Laboratory.

62-0005

The main purpose of the study was to carry out a biological collecting program. Temperature and salinity measurements were made from a small, outboard-powered boat, using a single bottle. The oceanographic stations were located near shore in relatively shallow water depths ranging from 29 to 63 m. No information is given in the data report as to methods, accuracies or suspect and erroneous data.

62-0006

Barber and Huyer (1971) identified the following data as suspect:

Stn.	Depth	Change	Reason
33	350	Delete S	Strong density inversion
37	500	Delete S, T	Strong density inversion
37	600	Delete S, T	
39	200	Delete S, T	Slight inversion where strong gradient expected
41	10	Change S to 29.424	A number of density inversions
41	20	Change S to 31.020	
41	30		
41	50	Change S to 31.170	

62-0013

These data obtained at a temporary water level station in Queens Channel are available from MEDS under the identification number listed in the "Source or Reference" column of Table 1. As discussed for data set 49-0001, the type of instrument, accuracies and any occurrences of erroneous data are not known.

At this time a number of different types of water level gauges were in use by the Canadian Hydrographic Service including the Ott float gauge, the Ott potentiometric gauge, the Leopold-Stevens A71 water level recorder and the Ottboro gauge (Stephenson, 1977). In particular, the Ottboro gauge (Canadian Hydrographic Service, 1964) was designed for use at temporary water level stations while the other instruments were more likely to be used at permanent stations.

63-0010

Beginning in 1963, the Defence Research Board of Canada established a field station at the head of Tanquary Fiord, located on the west side of Ellesmere Island. This station served as a base camp for scientists of many disciplines including glaciology, zoology, botany, meteorology, ice physics and geology. Physical oceanographic data continued to be collected until at least 1967. (Some physical oceanographic data may have been collected in years subsequent to 1967, but no written description has yet been located.)

The methods and instrumentation used in the 1963 oceanographic field program are discussed in Hattersley-Smith (1964) while further useful comments concerning methods are presented in Hattersley-Smith and Serson (1966) and CODC (1969).

The spring oceanographic stations were reached by use of motor toboggan and a dog team. Serial temperature and salinity data were obtained with Knudsen bottles using a single reversing thermometer. Salinity samples once drawn, were apparently allowed to freeze prior to shipment south for laboratory analysis. While the method of salinity determination is not specified, it was very likely the conductive salinometer widely in use by this time.

Once ice breakup had begun, a 22 foot freight canoe served as the data collection platform. The instruments used for the summer oceanographic program were identical to those of the spring program.

Station locations were determined by theodolite bearings to shore features. Typical position accuracies are given as 700 m or better (CODC, 1969).

Bottle station temperature and salinity data were also collected from the density-stratified Lake Tuborg located northeast of the head of Antoinette Bay. Reversing thermometers were not available for this station, so the only temperature data available is that obtained with a bathythermograph.

Limited water level observations were made near the base camp at the head of Tanquary Fiord over intermittent 1 to 3 day periods in late June and the month of July. Data were obtained by measuring water level against a staff embedded in a drum filled with gravel situated in about 1 m of water.

64-0004

No report of any kind was located concerning the oceanographic data obtained from the CCGS Sir John A. MacDonald in 1964. The bottle cast temperature and salinity data are available from MEDS.

64-0005

Oceanographic observations were obtained from an ice camp established primarily for studies of under ice acoustic measurements. Transportation was provided by tractor vehicles starting from the Isachsen weather station. The data were collected in a heated shelter located over the ice hole using Fjarlie seawater sampling bottles equipped with Richter and Weise reversing thermometers. Salinity samples were stored in 8 oz citrate bottles "... which were protected from freezing too fast." The samples were analyzed on a conductivity salinometer in Nanaimo, B.C.

64-0008

1964 marked the second year of operations from the field station at the head of Tanquary Fiord operated by the Defence Research Board of Canada (see 63-0010).

The data collection methods and procedures were nearly the same as those of the previous year as described in Hattersley-Smith (1967), Hattersley-Smith and Serson (1966) and CODC (1969).

Water level measurements in 1964 were obtained with a Foxborough underwater tide-gauge, on loan from the Canadian Hydrographic Service. The gauge operated continuously from July 8 to August 23 with the exception of a four day gap from July 20-24.

65-0005

1965 was the third year of operations from the Tanquary Fiord base camp operated by the Defence Research Board of Canada. Oceanographic data collection methods and instrumentation appear to be the same as those used in 1963 (63-0010) and 1964 (64-0008) as indicated by the data report (CODC, 1969).

No water level measurements were catalogued for 1965 by MEDS. It is not known which, if any, of the concurrent measurement programs of 1964 continued in 1965.

66-0010

1966 was the fourth year of operations from the Tanquary Fiord base camp operated by the Defence Research Board of Canada. Oceanographic data collection methods and instrumentation appear to be the same as those used in 1963 (63-0010) and 1964 (64-0008) as indicated by the data report (CODC, 1969).

Apparently no water level measurements were obtained in 1966, as indicated by the absence of any such record in the MEDS catalogue. It is not known which, if any, of the concurrent measurement programs of 1963-1964 continued into 1966.

67-0002

At each oceanographic station on this 1967 CCGS Labrador cruise, a single reversing bottle station cast was carried out. A bathythermograph profile was also obtained at most stations. Samples for salinity determination were drawn into flat 8 oz. glass medicine bottles, stored on board and subsequently analyzed at the Atlantic Oceanographic Laboratory, Dartmouth, N.S., using a salinometer of the type described by Brown and Hamon (1961).

Sediment cores were obtained at about one station in three using a large gravity corer. The cores were forwarded to Dr. B.R. Pelletier of Atlantic Oceanographic Laboratory.

At a few stations, water samples were collected for deuterium analysis at the Woods Hole Oceanographic Institution. The results for these samples are reported in Redfield and Friedman (1969).

An instrument capable of measuring temperature and salinity in situ was used at one location (station 20), among those occupied in the Queen Elizabeth Islands. Comparisons with concurrent bottle cast measurements at eight stations over the duration of the cruise revealed differences of $-0.04 \pm 0.14C°$ (mean and standard deviation) and $0.13 \pm 0.11°/oo$ for temperature and salinity, respectively (CODC, 1968).

Short period (8 to 18 hours) time series measurements of the current speed and direction, water temperature and salinity were obtained at 1 m depth during this cruise (Herlinveaux, 1974). A Hydroproduct current meter was used for this purpose. In addition, information on near-surface currents was inferred from ship and iceberg drift observations.

67-0005

1967 was the fifth year of operations in Tanquary Fiord; it is believed that operations may have continued in subsequent years on a more limited scale.

68-0001

Reversing water bottles and thermometers were used (Herlinveaux, 1970). Each cast was followed by a BT. Salinity was determined with a conductivity salinometer. The data are presented as listings.

Dissolved oxygen was also measured and biological samples were collected using the submersible Pisces.

68-0008

See 62-0013.

69-0014

1969 marked the first of an eight-year period of data collection by the Frozen Sea Research Group of the Institute of Ocean Sciences in d'Iberville Fiord, an appendage to the Nansen Sound-Greely Fiord system.

In the early spring period of 1969, CTD data were collected at three sites using a Guildline CTD, although date and time information could not be located for these profiles. The measurement depth intervals were 1 m. These data should be used with care, as the calibration values for the CTD instrument may be in question.

Other measurements collected at this time were temperature time series data using a chain of thermistors at depths from near the ice bottom to 46 m "... at locations fairly close to shore." (Lake and Walker, 1973). Sampling intervals varied from 10 seconds to 1 hour over periods of a few days to a week of each field trip.

69-0015

Data collection resumed at d'Iberville Fiord (see 69-0014) in the summer of 1969. During this period, bottle samples were used to provide salinity data for shallow depths close to shore. A chain of thermistors suspended from a buoy provided time series temperature data.

During this period, a diaphragm-operated Ottboro recorder provided water level measurements at a location just off the beach adjacent to the base camp (Lake and Walker, 1973).

69-0016

See 62-0013.

70-0017

A Guildline CTD provided profiles of salinity and temperature, at depth intervals of 0.25 m. In addition, thermistor chains measured time series temperature data to depths of 15 m (as described in 69-0014) and water level measurements were obtained with a diaphragm-operated Ottboro recorder at a beach location near the base camp.

70-0018

As for 69-0015.

70-0019

Serson (1974) presents temperature and sigma-t profiles from 1970. No information is given about the data collection personnel or methods.

71-0015

A Guildline CTD provided salinity and temperature profile data, at depth intervals of 0.25 m. In addition, under-ice current measurements were made by means of photographic records of dye plume releases to depths of 2 m beneath the sea ice (see Lake and Lewis, 1973). The sites of these dye tracer measurements were:

Station	Latitude	Longitude
1-71	80°34.75'N	79°29.0'W
2-71	80°34.0'N	78°05.0'W

while the time and dates could not be located. Velocities ranged from 0 to 3-5 cm/s.

72-0023

Data collected in 1971 appears to have been limited to time series water level data at 10 m depth commencing on August 22, and thermistor chain data from August 20-September 11, at depths to 12.5 m.

The water level data were collected with a newly designed instrument which utilized an Aanderaa data logger and a Gulton differential pressure transducer which permits correction for atmospheric pressure fluctuations (Lewis, 1973).

72-0024

Serson (1974) presents a salinity profile from Rens Fiord taken on May 7, 1972. No other details are provided.

73-0006

Water mass: A Guildline CTD (accurate to $\pm$0.02C° and $\pm$0.04°/oo as stated by manufacturer) was used, and checks were made with bottle casts and reversing thermometers. Twenty-four casts were made at station 1 over a three-day period; then one cast at each of stations 2 through 6. Listings and plots are included in the report (Herlinveaux et al., 1978).

Currents: An Aanderaa RCM-4 current meter was moored at a depth of 153 m (2 m above bottom). Direction orientation was provided by a magnet on the frame the meter was attached to. Timing mechanism failure reduced the useable record length to about 6 days. Twenty-seven current profiles (instrument type not specified) were made at station 1 between April 15-19. A torsionally-rigid hose maintained direction orientation.

73-0008

This represents the second phase (the first being 73-006) of an oceanographic survey of Barrow Strait and Wellington Channel. A Guildline 8101 Arctic probe CTD unit and a Hydro Products Savonius rotor current meter were used. Repeated CTD casts were made while the ship was at anchor (Herlinveaux et al., in preparation).

73-0012

Serson (1974) shows a progressive vector plot of a May 14-17, 1973 current meter record from 2.32 m beneath the ice base in Sverdrup Channel. An ice salinity plot is also shown from May 15 data. There is no mention of the type of meter used or reference to a data report.

73-0013

CTD measurements were collected with Guildline Model 8101A CTD units. To monitor the accuracy of the CTD measurements water samples were collected from oceanographic bottles. Precision thermistors used to check water temperatures were calibrated in a triple point cell. The data were recorded on a Vidar 5400 data logger with printed and punched paper tape output, at a depth resolution of 1 m. The estimated accuracy of temperature and computed salinity vary according to the magnitude of the vertical gradients. Each record in the data report is annotated according to estimated accuracy. A detailed discussion of the methods used in collecting the CTD data is presented by Lewis and Sudar (1972).

73-0014

See 62-0013.

73-0015

Water level data were collected at two sites in 10 m of water using the bottom pressure gauge (see 72-0023). Field notes indicate that one of the records operated at 80°36'N, 79°33'W had suspect data from June 28-July 4.

A thermistor chain was operated at 80°35.5'N, 79°32.0'W from June 30, 1973 to June 19, 1974. The sensors were at depths of 0.5, 0.7, 1.1, 1.3, 1.5, 1.7, 1.9, 2.1, 2.3 and 2.5 m; the sampling rate is not known.

74-0018

Current meter measurements and water properties were measured at seven locations in and near Danish Strait in 1974, near the Jackson Bay G-16 well site. Supporting information is sparse. A current meter, possibly a Cushing

electromagnetic, was used to measure currents at depths between 0 and 2 m beneath the ice. Record lengths were short, less than 2 days. The quality of the data cannot be determined at this time.

General comments regarding data collected for and by Panarctic 1974-1980:

Currents:
- generally used Aanderaa RCM-4's and speeds were often below stall speed for much of the record length.
- some records have been found to be in error by 180° due to surface alignment error. It is not certain which records are wrong.
- the reports rarely discussed directional accuracy.
- the RCM-4 current meters apparently had conductivity and temperature sensors, however these data were never mentioned in reports.

Water properties:
- quality of early data poor; used RCM-4's to profile, no bottles or reversing thermometers to check on calibration.
- recording of times of observations not always accurate
- starting in 1977, a Guildline CTD came into use. -
- starting in 1979, bottles and reversing thermometers were used for in situ calibration purposes, although it was often unclear how corrections were made.

Water levels:
- generally used Stephen 2A-35; fixed on ice with pulley line and weight on bottom.
- errors due to sinking of weight, possible lateral movement of ice, and poor accuracy of time and height recordings.

74-0025

CTD data were collected during two periods at d'Iberville Fiord in 1974: March 30-April 10 and August 23-25. The methods are summarized in 73-0013.

In 1974, water level measurements were obtained at two locations in 10 m water depth using a bottom pressure gauge as described in 72-0023. In addition, records of thermistor data were located from August 19, 1974 to June 19, 1975. Documentation as to location and sampling rate was not found. Hourly time series current meter measurements were obtained at three locations across the fiord. The data were collected with Aanderaa recording current meters modified for Arctic use in order to provide a directional reference. The instruments were located over the sill within 1 m of the sea ice and 1 m above the bottom on the sill. While the current meters were not recovered the data were relayed by VHF telemetry to a recorder at the base camp. Many instances of suspect or incorrect data values were evident in the recorded data.

75-0016

Five Aanderaa RCM-4 current meters were deployed near surface at five locations near northwestern Melville Island. The meteorological convention, using direction from, was used. The depths of the meters are not given but were planned to be within 2 m of the bottom of the ice. Currents were weak and many recordings were below the 2.2 cm/s threshold value of the meters, particularly at sites 1, 2 and 4. At locations 1 and 2 constant directions were recorded, probably due to jammed vanes. Apparently these values were

also used to produce current roses and progressive vector diagrams (Beak, 1976). There also may be timing errors at stations 1, 2 and 5 since record length and number of records do not agree. The method of referencing north is not specified. In later programs the meters were rigidly connected to surface, but human error often introduced a 180° error in direction.

An Interocean 513 CTD was used to obtain in situ measurements of water properties to 10 m depth at all five locations; for depths greater than 10 m at site 1 and Aanderaa RCM-4 was used. Dates were not provided for the shallow profiles. Salinity values were abnormally high. Also see general comments for 74-0018.

75-0017

Aanderaa RCM-4 current meters were used to measure currents at two sites. Currents were measured at various depths from surface to 366 m, and for periods of time ranging from 1 to 14 days. No discussion of mooring design or accuracy of current direction measurements is given (Beak, 1976b).

Profiles of temperature and conductivity were also made, apparently using an Aanderaa RCM-4 as well, although this was not stated. Time series of temperature and conductivity were also recorded while the RCM-4 was moored at the various depths.

Water levels were also measured during January-April 1975 at the Drake 1-55 well site, 15 km offshore, at the same latitude as Warren Point. The instrument used was not specified in Beak (1976b). Also see general comments for 74-0018.

75-0018

An Aanderaa RCM-4 current meter was moored near-surface at each of three locations. Record lengths are roughly 5 months long. At the Hazen Strait location little if any useful data was obtained; the current meter casing was flooded upon recovery. The record from the Desbarats Strait site has many records below the stall speed. The MacLean Strait data are worse with no currents about 70% of the time and large segments of record with unvarying direction.

An Interocean 513 CTD was used to measure conductivity, temperature and pressure in situ at the same three locations. The data are considered suspect and no documentation was available. Also see general comments for 74-0018.

75-0019

A Cushing 600 electromagnetic current meter was used to obtain six separate 24-hour measurements at one site. The three records of March 23, 19 and April 3 appear reasonable. The other three are suspect or only had one channel working.

In situ temperature and conductivity were measured using a Beckman RS5-3 and a Y.S.I. instrument. Details of methods and accuracies are unknown. Also see general comments for 74-0018.

75-0020

One Aanderaa RCM-4 was moored at 10 m depth in Hecla and Griper Bay off northern Melville Island, from December 6, 1975 to February 27, 1976. There is no discussion of direction due to the proximity of the magnetic north pole (Beak, 1976d). Current speeds in February were generally below threshold values.

An RCM-4 was also used for profiles of conductivity, pressure and temperature on December 6, 1975 and February 11, 1976. The February profile of salinity appears to be too low, and both profiles show warmer water at surface which is unexpected.

Measurements of high and low tide were also made but only to $\pm$1 hour accuracy. Also see general comments for 74-0018.

75-0021

Currents were measured at one location using both an Aanderaa RCM-4 and a Cushing electromagnetic current meter. The two differed by about 30° in direction and the Cushing speeds were considered unreliable, being much larger than the Aanderaa's.

An Aanderaa RCM-4 was used to obtain in situ profiles of temperature and conductivity. The conductivity data are suspect since they indicate a freshening of the entire water column by 2°/oo between Frebruary and April. the moored current meter record of conductivity suggests the February conductivity profile to be in error.

A Stephen water level recorder was used but times were recorded with an accuracy of only $\pm$1 hour. Also see general comments for 74-0018.

75-0022

Existing documentation is poor and it is difficult to determine exactly what data was collected. Currents were measured at two sites - Prince Gustaf Adolf Sea, and Hazen Strait - using a Cushing electromagnetic current meter. At the first site it appears that one instrument was used, and only measured one component of the current (e.g. NS but not EW, and vice versa). At the Hazen Strait site, measurements of both components were obtained for the period April 9-May 25. In most cases, the sample interval was not constant, and the instrument depth was not recorded.

An Aanderaa RCM-4 was used to profile temperature and conductivity at three sites. The longitude recorded for the MacLean Strait site was wrong. It is not known if bottles were used to check the calibration. Also see general comments for 74-0018.

75-0023

Measurements of conductivity and temperature were made at Jackson Bay sites using a Beckman RS5-3, a Y.S.I. proble and reversing thermometers. The temperature measurements of the Beckman RS5-3 were unreasonable, making the computed salinities unreliable. Also see general comments for 74-0018.

75-0039

CTD data were collected at d'Iberville Fiord from March 28, 1974 to April 12, 1974 using the methods described in 73-0013.

Water level measurements sampled at 30 minute intervals were obtained at two locations in 10 m water depths using a bottom pressure gauge described under 72-0023. At one of these sites (80°36'N, 79°33'W) short records of rapid sampling, at one sample every 17.5 seconds, were carried out over the period:

0900 April 6 - 0859 April 8
1675 April 18 - 1559 April 19

Time series current meter measurements were obtained at four locations, with samples recorded every 10 minutes, using an Aanderaa RCM-4 current meter. These instruments, mounted 1 m above the bottom, were modified to provide an internal directional reference in this area of weak horizontal magnetic fields.

In addition, current profile data were obtained using an ultrasonic current meter produced by the Christian Michelsen Institute in Bergen, Norway. The continuously recording unit provides an accuracy approaching $\pm$0.25 cm/s. Current direction was obtained by indirect use of a gyro, with an estimated accuracy of $\pm$10 degrees (Lake and Walker, 1976).

75-0040

See comments for 62-0013.

76-0014

Subsurface currents were measured at one site in Hecla and Griper Bay using an Aanderaa RCM-4 current meter, between January 15 and April 17, 1976. The record for January 15-February 7 appears to be reasonably good. February 7-12 has suspect constant directions and speeds. The February 12-16 record appears okay. From February 16 to April 8 the direction vane was apparently fouled due to sediment buildup. Speeds were below stall speed after February 20. From April 8-17 nearly all speeds were below stall speed, and constant directions occurred during the April 11-5 interval.

Three profiles of temperature and conductivity were made on January 15, February 10 and April 4, using an Aanderaa RCM-4. The January 15 data are suspect as they show higher salinities than felt reasonable. Also see general comments for 74-0018.

76-0015

Aanderaa RCM-4 current meters were deployed at three sites. The IVL (1976) report was unavailable but apparently the direction channel is unreliable for all three records. Also see general comments for 74-0018.

76-0016

Profiles of conductivity and temperature were obtained using an Aanderaa RCM-4. The RCM-4 was modified with subsequent accuracies quoted (Peck, 1977) as ±0.1 mmho/cm (conductivity), ±0.05° (temperature) and ±1.5 m depth. Equivalent accuracy of salinity is about ±0.15°/oo. No mention of bottles or reversing thermometers was made.

Four electromagnetic current meters, two Marsh-McBirney 501 and two Endeco 720, were used. One of the Marsh-McBirney records was found to be unreliable and was not presented by Peck (1977). The meters were referenced (as to direction) and suspended from the ice surface. They were suspended 2.4 m below the ice surface.

The report also presents a harmonic analysis of the tide record from Pelham Bay.

76-0017

Currents were measured using modified Aanderaa RCM-4's. Smaller in-line directional vanes were used to enable the meters to fit through holes in the ice. The close proximity of the north magnetic pole precluded the use of magnetic compasses. Presumably the meters were oriented with respect to the surface; directional accuracy was stated to be ±5-7° (Greisman and Lake, 1978).

The current meters were deployed at three distinct levels: (1) immediately beneath the ice (speed sensor 15 to 20 cm below the ice bottom with direction vane 15 cm deeper); (2) mid-depth, varying according to location and water depth (at some locations, an instrument was not deployed at mid-depth); and (3) near-bottom current meters which were mounted on an aluminum frame (speed sensor 2 m above the sea floor with the direction vane 60 cm below the speed sensor).

The data from the under-ice and near-bottom current meters were transmitted hourly to shore stations via a UHF radio system where the data were recorded on a model 610 Sea Data cassette recorder. In all cases the data were internally recorded as well. However, some of these instruments were not recovered with the result that the lower quality shore station recordings provided the only available information. These records are summarized below:

Station	Percent of Data Recovery
B2.2	80
B3.1	60
B5.2	30
A1.2	60
A3.2	98
A4.2	100
A5.2	67

The erroneous or missing data values were replaced with interpolated values.

For the near-bottom current meter at station A2 in Austin Channel, the instrument though recovered on March 14, 1977 had toppled over on August 21, 1976. After August 21, the only useable recorded data were the temperature values.

A detailed analysis of these current meter data are given in Greisman and Lake (1978).

76-0018

CTD data were collected in d'Iberville Fiord, Greely Fiord and Eureka Sound from March 8-31, 1976 following the methods described under 73-0013.

Water level measurements were obtained at two locations in 10 m water depth. The data were collected with a bottom pressure gauge as described under 72-0023.

76-0019

See general comments for tide gauges under 74-0018.

77-0019

CTD data were collected in d'Iberville Fiord from March 4-27, 1977 following the methods described under 73-0013. Water level data were collected in 32 m water depth at a single location. The data were obtained with an Aanderaa bottom pressure gauge, sampling once very 30 minutes.

77-0022

Two Aanderaa RCM-4 current meter records are available for one site in Hecla and Griper Bay, March 24-April 16 and April 17-May 1. The meter was hung 10 m below the ice surface. Three days are missing from the first record, probably at the beginning, and speeds were below stall speed approximately 45% of the time.

Three profiles of conductivity and temperature were also made. The first profile, on March 23, is suspect, as the instrument did not record properly. Bottle samples were collected to check the data from all profiles. Also see general comments under 74-0018.

77-0023

Currents were measured at two sites in MacLean and Hazen Straits using Aanderaa RCM-4's. At the MacLean and Hazen Strait sites, currents were below the stall speed about 64% and 22% of the time respectively. The Aanderaa RCM-4's were also used to obtain conductivity and temperature profiles, however the quality of the data is unknown. Also see general comments under 74-0018.

77-0024

Currents were recorded using an Aanderaa RCM-4 current meter. The record is missing 21 samples (10.5 hours). Currents were below the stall speed for 28% of the time, for periods lasting up to several days.

A Guildline model 8705 CTD was used to measure profiles of conductivity and temperature. The data was reviewed by a government oceanographer and deemed to be of good quality.

Water elevations were monitored using a Stephen model 2A-35 duplex recorder. The report (Panarctic, 1978a) states poor resolution in both magnitude and time, possibly to ±hour only. Also see general comments under 74-0018.

77-0025

Subsurface currents, 10 m below the ice, were measured using an Aanderaa RCM-4. The record (January 11-April 9) contains 12 extra records, representing an error of 6 hours.

A Guildline 8705 CTD was used and the salinity/temperature data appears reasonable.

Water level data were stated (Panarctic, 1978b) to be of poor resolution in both magnitude and time. Also see general comments under 74-0018.

77-0026

The current meter instrumentation is identical to that described for 76-0017. However, no real-time UHF transmission system was used in this experiment.

A detailed oceanographic analysis of the current meter data is presented in Greisman and Lake (1978).

77-0033

Current meter data were collected as part of the development of a system to acquire real-time measurement of meteorological, oceanographic and sea-ice parameters in the Canadian Arctic using stations mounted on the ice. The system, developed by Innovative Ventures Ltd. of Calgary on behalf of Petro-Canada was given the acronym SALDAS, for Self-contained Arctic Long-Term Data Acquisition System. Current meter measurements were collected with Aanderaa RCM-4 current meters. These instruments were modified by using small directional vanes, directionally referenced to the surface through the use of torsionally-rigid mooring lines.

For these data, some important documentation information could not be located. A total of 11 raw Aanderaa current meter data tapes exist, as identified by the instrument serial number. Of these, two tapes were unreadable while the remainder produced acceptable translations. However, information identifying the instruments used at each site has not been found to date.

Written documentation describes the start and stop times for five locations; of these positions, four of the sites are given in separate documentation. At the fifth station, located in Prince Gustaf Adolf Sea where no position was noted, the location of the 1979 SALDAS site (79-0017) was used. In addition, no indication could be found as to the sampling rate used. While it is known that current meters were operated on two levels at each site, the depth of the deepest meter is given as 30 m and 100 m in different portions of the available documentation. An examination of the raw data (Fissel, 1982) reveals that in 7 of 9 useable time series records, the directional data

appears to remain unrealistically constant over long periods of time. In addition, four of the data sets have periods where the speeds abruptly drop to zero readings over many samples.

78-0007

Water mass measurements: A Guildline Mark IV CTD was used. The data are presented as listings and profile plots (Prinsenberg, Vol. 1, 1978).

Current measurements: Fourteen Aanderaa RCM-4's were also deployed through the ice. Directional orientation was provided through rigid coupling to surface (Prinsenberg, Vol. 2, 1978).

78-0010

Three sets of current measurements were made east of Sabine Peninsula using Aanderaa RCM-4's. The three data sets cover January 23-April 25, January 22-March 25, and March 27-April 11. The first record is missing 6 days and 10 hours of data, and 45% of the speeds are below stall speed. The second set apparently has no reliable direction data, and 91% of the speeds were less than the stall speed in the third record. No details are available regarding the water level record. Also see general comments under 74-0018.

No data report could be located regarding these data. The above information was taken from Van Ieperen (1981) and a computer archival tape prepared by Panarctic Oils Ltd.

78-0011

At two sites, off northeast Cornwall Island and Edinburgh Sea, two Aanderaa RCM-4 current meters were suspended at 2 and 3 m beneath the ice. At the northeast Cornwall location apparently only the upper meter worked and it provided no directions after mid-March. At the Edinburgh Sea location only the lower meter functioned and some uncertainty exists concerning the time period of recorded data. Also from May 26 until the end of record (June 4) the current data are wrong. There is also confusion regarding the instrument orientation, with a possible 112° error in the plots of the Panarctic (1979d) report. Also see comments under 74-0018.

78-0012

The instrumentation methods are similar to those described for 76-0017. However, no real-time UHF transmission system was used and the current meters nearest the surface were located at 12 m depth.

78-0013

An Aanderaa RCM-4 was moored 10 m below the ice cover. Thirty-four percent of the readings were below stall speed and the record length and number of records disagree by 36 hours.

Profiles of conductivity and temperature were obtained using a Guildline 8705 CTD. Apparently no bottle casts or reversing thermometers were used to check the readings. The water level data are not of good quality, probably due to inaccuracy of timing. Also see general comments under 74-0018.

78-0014

An Aanderaa RCM-4 was moored 10 m below the ice during the January 1-April 6 period, although there is no data after February 20. The January 1-February 20 record has many spikes but the data appear reasonable.

Guildline 8705 CTD profiles were made during December 30, 1978-January 2, 1979 and April 3-5, 1979. Apparently no bottle samples or reversing thermometers were used to check instrument performance.

The times of Stephen model 2A-35 tide gauge data were recorded to ±30 minutes. Also see general comments under 74-0018.

78-0016

The existence of these data are referenced in Van Ieperen (1981) but no data report could be located describing methods, techniques or the data itself.

79-0017

Current meter data were collected as part of the development of a system to acquire real-time measurement of meteorological, oceanographic and sea-ice parameters in the Canadian Arctic using stations mounted on the ice. The system, developed by Innovative Ventures Ltd. of Calgary on behalf of Petro-Canada was given the acronym SALDAS, for Self-contained Arctic Long-Term Data Acquisition System. Current meter measurements were collected with Aanderaa RCM-4 current meters. These instruments were modified by using small directional vanes, directionally referenced to the surface through the use of torsionally-rigid mooring lines.

The timing of the current meter data sets is uncertain. Timing checks could not be carried out since only the time of the last record and total number of samples were known, and start times had to be computed from these two values and an assumed hourly sampling rate. (For one location (station 3), the significantly longer number of measurements led to a start time in the pevious summer of 1978 which seemed highly unlikely in view of the ice conditions at this time of year; therefore, the sampling intervals for the two data sets at this location were assumed to be 30 minutes rather than 60 minutes.) At three of the other sites (1, 2 and 3) a significant difference in the number of records obtained from the upper and lower current meters (7.7, 0.9 and 5.2% respectively) also suggest possible timing problems.

Two recurring suspect patterns were noted (Fissel, 1982) in some data sets:
1) speed dropouts occurring over suspiciously long periods:

Station 2 - 30 m depth - 59 days
Station 4 - 30 m depth - 71 days
Station 5 - 30 m depth - 8 days
Station 3 - 5 m depth - >75 days
Station 3 - 30 m depth - >75 days

2) direction data which appeared to remain constant ("or locked") over long periods. This problem was most evident at station 1 at 5 m depth and station 3 at 30 m depth.

79-0018

One Aanderaa RCM-4 current meter measured current speed and direction 10 m below the ice surface during the period January 13-May 5, 1979. There was about 8 hours difference between the record and the surface printout times. Temperature and salinity (from the current meter) were not discussed in the documentation (Panarctic, 1979c).

Profiles of temperature and salinity were measured using a Guildline 8705 CTD. Apparently no bottles or reversing thermometers were used to check calibration.

The water level data, using a Stephen model 2A-35, was subject to error from the sinking of the weight into the mud and possible lateral movements of the ice. The quality of data from the Aanderaa WLR-5D is unknown. Also see general comments under 74-0018.

79-0019

Fourteen current meters (modified Aanderaa RCM-4's) were moored from the ice surface. They were rigidly connected to surface and aligned using the aircraft's gyro-compass. "A follower compass solenoid inside the current meter case then gave the vane orientation with respect to the case." Three meters gave short or no records, possibly due to exposure to -40°C temperatures for a week before the scientists arrived.

A Guildline Mark IV CTD was used to obtain profiles of temperature and conductivity. Accuracies were stated to be $\pm 0.01^{o}/oo$ and $\pm 0.01°C$. (Peck, 1979, Vol. 2).

79-0020

Four Aanderaa RCM-4 current meter records were obtained near the Whitefish H-63A well site (W. Lougheed Island), at depths of 10, 150 and 275 m (2 meters). The direction sensors failed after 2-3 weeks on the deep current meters. Current speeds were below stall speed about 50% of the time. The 150 and 275 m moorings used two point suspension aligned with true north from surface. There is no mention of weights being added to the moorings to improve stability.

A Guildline 8705 CTD was used, along with Nansen bottles and reversing thermometers. The report (Panarctic, 1980a) says agreement between CTD and bottles was excellent, however they differed by up to $0.3^{o}/oo$. No discussion is given of how corrections, if any, were made. Also the CTD depth scales presented in the report are in error; they should be multiplied by 0.7.

A Stephen 2A-35 water level gauge was used; recordings to ± 30 minutes and ± 5 cm.

79-0021

These water level data were collected by the Canadian Hydrographic Service, Burlington, Ontario using bottom pressure gauges of either Aanderaa Instruments or Applied Microsystems type. Sampling rates are unknown and instrument depths are likely within 1 or 2 m of the bottom.

Positions for all deployments were determined by dead reckoning from prominent shore features (D. St. Jacques, 1981, personal communication).

These data are on file at:

Canadian Hydrographic Service
Bayfield Laboratory for Marine Science and Surveys
Ocean Science and Surveys
Burlington, Ontario
L7R 4A6

79-0022

Aanderaa RCM-4 current meter records were obtained at two sites in the Edinburgh Sea, 10 m below the ice surface, for the period January 21-April 11, 1980. The direction vanes apparently became "sticky" and may be unreliable after February 2.

A Guildline 8705 CTD was used, supported by Nansen bottles and reversing thermometers. Differences between the bottle and CTD salinities, for two of the winter profiles, were 0.22 and 0.89°/oo. No explanation is given (Panarctic, 1980b) of how the CTD profiles were corrected.

Steven 2A-35 water level gauges were deployed at both sites; accuracy is unknown. Apparently an Aanderaa tide gauge was also deployed at 77°36.5'N, 99°31.13'W but no details were available.

80-0013

These data were collected as part of an oceanographic and meteorological study of the Dundas Island polynya in Queens Channel.

Five modified internally recording Aanderaa RCM-4 current meters were used. These instruments were suspended on lengths of hydraulic hose for rotational stability and to provide a fixed directional reference. The current meters use an in-line directional vane assembly attached beneath the pressure case (Lewis, 1980).

80-0014

Aanderaa RCM-4's modified for Arctic use were deployed near-surface, mid-depth and near-bottom at three sites. The surface meters were rigidly connected to surface in order to obtain directional reference. The vane contained magnets which were coupled with the compass inside the casing. The mid-depth and near-bottom meters had no direction sensor. Three of the meters failed after recording some data. Two were tape drive failures, the third due to an "O"-ring leak.

An Aanderaa WLR5A was used to record ambient pressure and thus water level. Manufacturer's specified accuracy is 0.01% of selected range; the range was not specified in Juhasz (1980).

80-0015

See the comments for 79-0021.

81-0007

This study was concentrated in Barrow Strait however some CTD stations were occupied in southern Wellington Channel and McDougal Sound. A Guildline MK VI CTD was used. As of field report stage (Brooks, 1981) no problems had arisen in the data.

81-0019

See the comments for 79-0021.

APPENDIX 2

INSTITUTIONS, AGENCIES AND INFORMATION CENTRES

1. Defence Research Establishment Ottawa
   Ottawa, Ontario
   K1A 0Z4
   Phone: (613) 992-8395

2. Defence Research Establishment Pacific
   CFB Esquimalt
   Victoria, B.C.
   V0S 1B0
   Phone: (604) 388-1921

3. Dr. M.P. Van Ieperen
   Panarctic Oils Ltd.
   P.O. Box 190
   Calgary, Alberta
   T2P 2H6

4. Institute of Ocean Sciences
   P.O. Box 6000,
   Sidney, B.C.
   V8L 4B2
   Phone: (604) 656-8216

5. Marine Environmental Data Service
   7th West, 240 Sparks Street,
   Ottawa, Ontario
   K1A 0E6
   Phone: (613) 995-2041

6. National Oceanographic Data Center
   National Oceanic and Atmospheric Administration
   Code D761
   2001 Wisconsin Ave., N.W.
   Washington, D.C.
   20235
   Phone: (202) 634-7500

Volumes available.

1. Beaufort Sea: Physical Oceanography - Temperature, Salinity, Currents and Water Levels.

2. Beaufort Sea: Chemical Oceanography.

3. Northwest Passage: Physical Oceanography - Temperature, Salinity, Currents and Water Levels.

4. Northwest Passage: Chemical Oceanography.

5. Baffin Bay: Physical Oceanography - Temperature, Salinity, Currents and Water Levels.

6. Queen Elizabeth Islands: Physical Oceanography - Temperature, Salinity, Currents and Water Levels.

POOR

QUALITY

ORIGINAL